

# MANUFACTURERS' RECORD.

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## Manufacturers' Record.

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THOMAS P. GRASTY, Vice-President.

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### COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

### READING PUT TO GOOD EFFECT.

The announcement that the American Cigar Co. of New York will establish at Norfolk a branch factory employing 4000 persons has an interesting story connected with it. In May last the Manufacturers' Record published a report that the American Cigar Co. was contemplating the establishment of a branch factory at Greensboro, N. C. Mr. W. H. Lumsden, secretary of the Norfolk Chamber of Commerce, read the report in the Manufacturers' Record, and immediately wrote to the American Cigar Co. suggesting that Norfolk might be an excellent location for a branch factory. Mr. Lumsden was informed by the company that it did not contemplate putting such a plan into effect immediately. Mr. Lumsden did not lose sight of the matter, however, and a result of correspondence and conferences is the announcement of the establishment of a plant at a cost of \$100,000. Mr. Lumsden has illustrated the value of reading the Manufacturers' Record and of putting his reading to good effect.

### PAYING EDUCATIONAL FARES.

In an address before the Georgia legislature the Rev. Dr. Wallace Buttrick, one of the almoners in the Southern Education scheme, said that one of the most important features of the work was that of conferences with State and county superintendents; that the people whom he represents do not presume to call such conferences, but attend them as invited guests, and that "the meeting together and the discussion of practical questions by the county commissioners of the State is of itself a reward for the pains and labor involved." Dr. Buttrick seems to be gratified at the results of such conferences, and he must have met a different class of county superintendents than those described by The Educational, published at Columbia, S. C. Discussing Dr.

Buttrick's conferences, The Educational says:

Do not fall into the easy but monstrous error of supposing that certain duly elected officers, like the so-called county superintendents of education, for instance, are in any sense representative of the educational forces or the educational interests of the South. We have no desire to injure or reflect upon the character or the competence of any individuals who chance at present to be holding these offices. Most of them are well-meaning and many of them deserving, but as a class they are neither educators nor educated. Our system of securing these officers and the compensation preclude utterly the securing any better men. In the true sense of the term, most of our Southern States have no county superintendents of education.

It is hoped that Dr. Buttrick's further explorations of the Southern educational field will discover that this estimate of county superintendents is not generally applicable. But that the people whom Dr. Buttrick represents have rather curious notions about these county superintendents is indicated by a statement in the Southern School and Home of Tallahassee, Fla. Announcing the conference with Dr. Buttrick for Florida superintendents, it says:

The General Education Board will pay the traveling expenses of all superintendents, and each county is expected to send at least one Board member.

In his speech at Atlanta Dr. Buttrick said: "We are especially interested in promoting what is known in a vague way as 'the new education.'" The report of his explanation of the new education is rather vague. Can it mean that men charged with the duty of directing common-school education in the South are to be educated in having their railroad fares to conferences paid by the promoters of the Southern Education scheme? If that is the new education, the less heed paid to it the better for the South, for it is an education in dependence and in loss of self-respect. Whoever heard of invited guests paying the expenses of their hosts?

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 54 and 55.

### THE SOUTH AND THE ORIENT.

A railroad project now well under way to completion, one that will certainly be of incalculable advantage to the South, is the Kansas City, Mexico & Orient Railway, extensively described on another page of this issue of the Manufacturers' Record. This bold transportation plan originated with Arthur E. Stilwell, who conceived and executed the line which is now known as the Kansas City & Southern Railroad. The Orient, as it is commonly known, will be a direct line from Kansas City cutting across the great Southwest and Mexico to the Gulf of California, giving a short air line to tide-water on the Pacific coast 500 miles shorter than the roads running to California. It will be operated in connection with lines of steamers from Port Stilwell, on the Bay of Topolobampo, to the Far East, as well as to the west

coast of South America and the islands of the Pacific. Undoubtedly it will furnish a most valuable outlet for the raw and manufactured products of our great Southern and Southwestern country, particularly for cotton and goods made therefrom. Baled cotton will be exported via this route to Japan and other countries for purposes of manufacturing, and manufactured products will also be sought for the markets of those lands, as well as for the commerce of the Philippines and the Hawaiian Islands, of Chili and other countries upon the Pacific coast of South America.

The furnaces, like the mills of the South, must also contribute their share to the freight that will go over this new transcontinental railway, which is evidently destined to be the short line to Asia. Not only will the iron and steel be needed in countries beyond this continent, but they will also be in demand for the building of other railroads in Mexico that must surely follow the construction of the Stilwell line through the great mineral lands of the Sierra Madre in our sister republic.

The Orient road will also do a great work in the development of the Southwest. Its line goes through the heart of Oklahoma, and in Texas passes westward of the center of that State, crossing the east and west lines of railroads already built, and developing a region that is now without transportation facilities. It will thus be the means of carrying thousands of settlers into new country, and also of taking men of skill and capital into the rich mountain region of Mexico that is waiting to yield its treasures of gold, silver, copper, lead, iron and coal to the world.

A glance at the map makes clearly apparent the strength of position occupied by the Kansas City, Mexico & Orient Railway. It will provide not only the needed short cut from the railroad center of Kansas City to the Pacific coast, but it will also afford, by means of connections with other lines to the southward, an outlet from the Southern States to the Pacific coast much quicker than any now in existence.

### CHILD LABOR IN GEORGIA.

Mr. C. C. Houston, a well-known labor leader of Atlanta, who introduced into the Georgia legislature a bill to prohibit child labor in factories, has resigned from the chairmanship and membership of the committee on labor, to which the bill was referred. He is quoted as giving as a reason for his conduct that after investigation he became thoroughly convinced that the committee on labor had been so constituted that a majority of its members would either hold up all measures of the labor character or would compel him to report them adversely. If the committee is so constituted Georgia is to be congratulated, inasmuch as just at this moment and in "the state of mind" in some quarters legislation for the benefit of labor, if effected, would

be likely to be detrimental to the labor of Georgia. So, too, it is fortunate that the child-labor bill has been referred from the committee on labor to the committee on education, provided the latter committee bears in mind the following practical suggestions:

Granted that with the passage of restrictive legislation of a radical character the mill managements do not relax their efforts in behalf of common-school education in their respective communities, who is to provide the means for the education of thousands of white children in thinly-settled neighborhoods of the South, whose families have not yet been attracted to the mill towns?

Will the fathers of the bills against "child labor" in the several legislatures advocate an increase in the rate of taxation sufficient to raise the funds required for proper schools outside the mill towns? There is talk of a compulsory attendance law as a twin to the "child-labor" law. Not a single Southern State in which this agitation has been made has the equipment to meet the needs of its children ready and willing to go to school.

Do "child-labor" legislators see their way even to meeting those needs of willing school children which must be immediately increased with the crippling of the cotton mills as educators?

Do the agitators propose to work a revolution in public sentiment that will back up legislators in doubling the taxes for education in one year, and before the spread of industry has given men the means to pay the increased taxes?

Or, will legislators and agitators go into their own pockets to supply the deficiency?

### SEEKING A STAND IN THE SOUTH FOR SOCIALISM.

In an editorial attempting to combat the position of the Manufacturers' Record regarding the agitation against the employment of children in Southern cotton mills The State of Columbia, S. C., asserts that in this connection the Manufacturers' Record aims to be the organ of the Southern manufacturing interests; that "what the respective union of the employers and the employed may say or ask in this controversy matters not at all" to men and women in the South who are in sympathy with the child-labor agitation, and that the lively interest in the matter of the American Federation of Labor, with its boycott policy, and the United Textile Workers, with its incendiary doctrines, are extraneous things having nothing to do with the matter. The Columbia State in making such statements demonstrates, with reference to the aim of the Manufacturers' Record, either inability on the part of The State to understand plain English or its determination to disregard plain truth, and, with reference to the connection of New England and national labor organizations with the agitation, strikingly illustrates the necessity for just the kind of educational doctrine that the Manufacturers' Record has been preaching. While attempting to belittle the selfish motives in the agitation forced upon the South from outside, The State fails utterly to recognize selfishness in the opposition and to realize the dangerous tendency of the agitation.

It would be a waste of time to discuss the first point. A word or two

about the second, though, may not be amiss. It is generally understood that a law, to be effective, must represent a crystallization of sound and healthy public opinion. But it is seldom thought that the passage of one law in response to misinformed sympathy which looks only to a single point may be but the beginning of legislation induced by ephemeral considerations which might ultimately commit a people without their knowing it to a principle of law obnoxious and abhorrent. This process of creating public opinion by legislation, the reverse of the safe method, is well and appropriately described by an English correspondent of the New York Nation. Sketching developments in Great Britain he writes:

An act is passed to meet a particular case, e. g., the overworking of children in a particular kind of factory. Little attention is paid to the principle on which the act logically rests, yet it is soon perceived that if a law regulating the labor of children in one kind of factory is beneficial, it is applicable to almost any factory, or even any workshop. Meanwhile, as the sphere of the factory acts is extended a public opinion is formed in favor of State intervention. A host of acts dealing with particular cases obtain more and more the force of precedent, till at last the long line of what we may call "parliamentary judgments," beginning with the health and morals act, 1802, is closed, for the time at least, by the factory and workshop act, 1901, and the State regulation of labor stands forth as a recognized principle of modern English law. Note further that this course of legislative action has at each step stimulated the growth of public opinion in favor of State intervention, and has produced a body of collectivist sentiment or conviction, which, in its turn, has given birth to large bodies of collectivist, or, as some would say, socialistic laws.

Here is presented a conclusion of the program which it is obvious has been set for the South in this child-labor agitation—a program diametrically opposed to the spirit of Americanism, best preserved in the South, upon which the country may have to depend in future times of strain and stress. That it has not been a success in England is proved by the presence in this country, and especially in the textile industry, of English agitators, and its failure to bring contentment to New England is shown by the fact that it has assumed sufficient proportions to elect socialistic mayors and to poll thousands of votes in a congressional campaign, with the advancement of a proposition that strikers shall be supported by the State in their voluntary idleness. While it will be contested in the South at every stage, if need arise, the suppression of it at its inception is the most satisfactory policy to be pursued, especially where its proposed child-labor agitation threatens with far-reaching evils the very class which it pretends to succor.

The fact to be borne in mind is that the undemocratic American Federation of Labor, with its socialistic, communistic or revolutionary allies in this country and abroad, is, as a leader in this crusade in the South, a section practically untouched by such evils, attempting to widen its influence, which can only result in suppression of the qualities of independence and self-reliance and of strong individuality which have brought Americans to their present commanding position in the world. A week or more ago, under the auspices of the American Society of Civil Engineers, the American Institute of Mining Engineers, the American Society of Mechanical Engineers and the American Institute of Electrical Engineers, was given a dinner in honor of the eightieth birthday of John Fritz, machinist's apprentice in 1838, builder of rolling mills in 1860 and mas-

ter steelmaker and captain of industry still in harness in 1902. Unable to be present at the dinner, Hon. Abram S. Hewitt sent a letter in which he dwelt upon the life work of John Fritz as a very conspicuous example of the working of American institutions during the past century. He wrote:

That a boy born in humble life, with no advantages of education or opportunities for position, without influential friends or the favoring accidents of fortune, should be able to advance steadily in usefulness, power and the respect of his fellow-men, until by common consent he occupies the first place in the domain of practical industry with which he has been connected, gives conclusive evidence that political institutions which afford free play to individual ambition, industry, ability and strict integrity are worthy of all loyalty and should be cherished and preserved at all costs and hazards.

The developments of the twentieth century show that these institutions are in great peril. Their essence is to be found in individual liberty, involving the right of free labor and the acquisition of private property under lawful conditions. When the right of free action shall be suppressed the possibility of a career like that of John Fritz will be destroyed. Collectivism, ending in socialism, may afford other advantages, but let it not be overlooked that these advantages will be obtained only by the sacrifice of personal freedom and will arrest the progress of civilization due during the ages that have passed to the substitution of freedom for force.

John Fritz is a living proof of the results of individual and industrial liberty in a country endowed with boundless resources. In vain shall we seek for a like career in nations or in countries where the individual initiative has been suppressed. The stagnation of China, whose men are physically strong and whose resources are abundant, is a marked contrast with our own land, where heretofore every citizen has been free to employ his labor and his energies in his own way, so long as the rights of others were respected.

John Fritz, therefore, is to us more than a man whom we love and respect, more than a friend to whom we wish many years of health and happiness; he is an example of the free spirit of American institutions, a beacon light warning the present and coming generations against permitting any invasion of the principle of the liberty of the citizen, which alone has made our beloved country great and free.

The principle of the liberty of the individual citizen is the vital principle attacked by the crusade which seeks a vantage-ground in the child-labor agitation in the South. That is why the interest in the matter of the United Textile Workers and other organizations is not extraneous, but is essential. That is why well-wishers for the South resist a program that would make impossible a Southern John Fritz.

#### A LESSON IN ORGANIZED LABOR.

The International Typographical Union has recently given an illustration of the value that organized labor may have for the community. About two years ago the Chicago representative of the American Federation of Labor expelled the delegates of the Chicago Typographical Union No. 16 because the union refused to support a strike begun by the newspaper pressmen of the city. The printers insisted that they were bound to maintain the five-year contract they had with the newspaper publishers, and because they refused to violate that contract the Federation of Labor passed its act of expulsion. The International Typographical Union took the matter in hand, and notified President Samuel Gompers of the American Federation of Labor that unless he should issue an order for the reinstatement of the Chicago Union the International Typographical Union would withdraw from the American Federation of Labor. The demand for honesty made by the International Typographical Union was one that the American Federation of Labor could not afford to disregard.

The withdrawal of the Typographical Union from the Federation would, in all probability, be the first step in the disintegration of the Federation. The attempt of the American Federation of Labor to force the Chicago Typographical Union to violate its contract in support of a strike, to discipline it for acting honestly, is one of the typical features of the Federation's policy which condemns it in the eyes of the general public. The counter-action of the International Typographical Union insisting upon the observance of the contract is a feature of the policy which has brought that branch of organized labor into such repute and high standing, for, as the Newark Evening News says, in commenting upon the incident:

The sacredness or inviolability of contract was not enumerated among the inalienable rights by the framers of the Declaration of Independence; but after life, liberty and the pursuit of happiness, it may be regarded as taking high rank. Disregard of it could only lead to disorganization, disaster and anarchy, and in this day of the complex interdependence in social arrangements, when there has been so much to vex and tear down in the often misguided controversies between capital and labor, the righteousness and daring independence of the action of the International Typographical Union, in this particular instance, calls for recognition and commendation.

#### CULTURE VALUE OF COTTON MILLS.

Several months ago the Manufacturers' Record published an address on the factory as an element in civilization made by Hon. Carroll D. Wright, United States commissioner of labor. It was an argument against a superficial study of the factory with the wrong conclusion that the factory has a deteriorating influence upon the operative and upon its community, and in behalf of the idea that the factory has been of itself an element in lifting up the social life of the people. The address, together with three other papers, has been published in a volume entitled "Some Ethical Phases of the Labor Question." This book is especially timely, and the particular address bears directly upon an agitation which has been forced upon the South. Everybody may not agree with all its conclusions, but to everyone will be obvious the timeliness of the suggestions contained in Mr. Wright's sketch of the rise of the factory system in this country. He traces developments in the early days of Lowell, when the daughters of New England farmers were attracted to industrial life, and he says:

A change came over the industrial condition, however, and the American and English girls were forced out of the factory through economic influences; but they were not forced downward in the scale of life. They were crowded out, but up into higher callings. They became the wives of foremen and superintendents, teachers in the common schools, clerks in stores and counting-rooms, and they lost nothing whatever by their life and services in the factory. The lower grade of operative that succeeded them brought the sharp comparison which led to the conclusion that the factory is degrading. The women who came in then were very largely Irish girls, fresh and raw immigrants from the poorer and less developed localities of Ireland. Taking the places of the English and American girls in the Eastern factories, they soon began to improve their condition, and the result was that they, in turn, were crowded out by another nationality. But the Irish girl did not retrograde. She progressed, as had her predecessors, and enlisted in higher occupations. The daughters of the original Irish factory operatives and scrub-women who came to this country were no longer factory operatives and scrub-women. They were to be found standing behind the counters of our great retail shops, well-dressed, educated in our schools, bright, active and industrious, and with a moral character equal to that of their predecessors.

The war period created the necessity of an increased number of factory operatives, and brought into our mills a great body of French-Canadian women. The opposition in the New England States to the presence of the French-Canadians was as great as it ever had been against the coming of the Irish. The opposition to the Irish had ceased; it was transferred to the French-Canadians; but I venture to say that there never has been a nationality coming into the United States that has shown such great progress in the same period of time as have the French-Canadians. They are now graduating from the factory, the Swedes, the Greeks and others coming in, and the factory is performing the same civilizing operation for the new quotas that it has always performed for the others. It is reaching down and down to the lower strata of society, and lifting them up to a higher standard of living.

Now we are in the presence of another experiment, or experience, rather, which teaches the soundness of the view I am trying to convey, and that experience is in the South. When the American girls left the factories of New England, foreigners took their places. The establishment of the textile factory in the South led to the employment of a body of native people—those born and bred in the South, popularly known as the poor whites—who up to the time of the erection of cotton factories had lived a precarious existence, and always in antagonism to the colored people, looking upon work as rather degrading than otherwise, because of the peculiar institution of the South, and on the whole not constituting a very desirable element in Southern population. Today these people are furnishing the textile factories of the Southern States with a class of operatives not surpassed in any part of the country. This is the testimony of the late Mr. Dingley in a speech in the House of Representatives. It is the testimony of English manufacturers who have carefully studied the conditions in the South, and the testimony from all sources is to the effect that the poor whites of the South are entering the cotton mills as an opportunity which had never before been open to them. They are becoming industrious and saving in their habits, and, coming to the factory towns, they bring their families, and they, in turn, are brought into an environment entirely different from that under which they were reared. They are now able to educate their children, to bring them up in a way which was never possible to them before, and thus the poor whites of the South are gradually, and with more or less rapidity, becoming not only a desirable, but a valuable, element in Southern population, on which the integrity and prosperity of a great industry largely depend.

The experience in the South is simply that of other localities, whether in this country or in England. The factory means education, enlightenment and an intellectual development utterly impossible without it—I mean to a class of people who could not reach these things in any other way. It is an element in social life. By its educational influences it is constantly lifting the people from a lower to a higher grade.

The main facts here set forth should be driven straight home to the places in the South where they ought to do the most good at this juncture, and they should be borne in mind in considering these other statements of Mr. Wright:

Gentlemen in charge of factories are the managers of great missionary establishments. In their conduct of them as industrial institutions they must recognize economic laws and conditions. It would be suicidal to take the purely ethical view at the expense of the economic, but while recognizing the economic conditions which compel certain actions, I believe there is no great difficulty in recognizing also the ethical relations which ought to exist between employer and employee. These ethical relations are becoming more and more a force in the conduct of industry.

The trouble in the South at present is an inclination on the part of well-meaning men and women who have been misled in supporting the agitation against features of cotton-mill life to refuse to recognize economic conditions. Ethics seems to be their specialty. But they have not been well grounded in the ethics which views a subject from all possible points and enunciates a program of ultimate good for the objects of ethical action rather than the satisfaction of idealistic hu-



manitarian aspirations. What is most needed right now in the agitation is a bit of the ethics of common sense.

#### ADVERTISING THE SOUTH.

As indicated in the advertising pages of the Manufacturers' Record, railroad companies and other corporations, individuals, municipal authorities and such organizations as boards of trade, chambers of commerce and commercial and industrial clubs in Southern communities are awakening to the necessity for explicit announcements of opportunities for investors in various lines of manufacturing industries and agriculture. The number of Southern towns inviting factories of various kinds is increasing weekly, and the inducements include free sites, exemption from local taxation, healthy climate, nearness of raw material for woodworking plants, tanneries, bark-extract plants, cotton mills, iron foundries, and a variety of power, steam, hydraulic or electric. Here is one town which has subscribed \$115,000 for investment in a cotton mill, and is looking for a practical manager with some capital. Here is another offering to subscribe half of the capital for the establishment of a \$50,000 or \$100,000 cotton mill. Here is a company controlling water and electrical powers, with considerable acreage of land available for free sites for a variety of industries. Here is a railroad company opening up great tracts of virgin timber, and here an industrial association setting forth the advantages which its city enjoys in the way of transportation facilities and accessible to many kinds of material for manufacture. The list is a growing one, and is typical of the practical work now being done on all hands for the full exploitation of the natural resources of the South.

#### THEIR WORKS DO FOLLOW THEM.

Two distinguished pioneers in Southern industry, John H. Montgomery of Spartanburg, S. C., and Henry W. Fries of Salem, N. C., died last week. Mr. Fries was seventy-seven years old, and had spent all his life in Salem, except a few years when he was at school in Pennsylvania. Before he was of age he began the manufacture of wool with his brother, and subsequently formed a partnership with him, which was dissolved in 1863 by the death of the brother. Under his will the business was continued by Henry W. Fries until 1879, when a new firm was formed, with Mr. Fries at its head. He did not confine his energies to manufacturing, but was active in transportation and financial interests. Captain Montgomery worked on a farm until he was nineteen years old, when he was hired to a country merchant for \$5 a month and board. In 1854 he formed a partnership with a brother-in-law in a mercantile business, but his partner moving to Texas, he conducted a country store, a small farm and a tannery until the breaking out of the war. He served through that struggle, and then resumed his mercantile life. In 1881 he and his associates purchased a water-power on the Pacolet river, and two years later built a cotton mill, of which he became the president. His factory interests were steadily enlarged, until at the time of his death he was president and treasurer of three mills, besides being interested in others and in many of the commercial establishments of Spartanburg. These two were notable specimens of Southern men who, remaining at home, have found there sufficient reasons for a

demonstration of the industry, thrift, enterprise and courage which have brought the South out of ruin and placed it upon the highway of prosperity.

#### BANKERS AT NEW ORLEANS.

The meeting this week of the American Bankers' Association in annual convention at New Orleans will be to the profit of the South and of the whole country. A few months ago representatives of the commercial life of New York made a trip through the South for a stay of several days in Texas. Another party of capitalists will end this week at New Orleans a trip through Mississippi, Louisiana and Texas. They will meet at New Orleans the largest gathering ever held by the American Bankers' Association—a gathering which will not only give the representatives of leading financial institutions of the country a magnificent view at close range of the wonderful possibilities of the South as a field for lucrative investment, but will also in itself emphasize the importance in business and commerce of New Orleans as the gateway to the Mississippi valley and as a typical center of Southern energy and enterprise. Flying trips in one direction through the rice fields of Louisiana into the new oil territory of Texas, and in another direction to the iron center of the Birmingham district, taking in by the way vast stretches of timber, sugar plantations, the cotton fields and the cotton factories, will enable these business visitors to enjoy the opportunity for personal acquaintance with a few of the industrial facts of which they have been reading for several years. There can be no doubt about the result.

#### CAUSE AND EFFECT IN MISSISSIPPI.

Largely-increased appropriations for public schools and colleges, expenditures for a number of educational and eleemosynary institutes, investments of millions of dollars by individuals and corporations in cotton mills, oil mills, saw-mills, planing mills and factories of different kinds, in railroads and in real estate are mentioned by the Jackson correspondent of the New Orleans Picayune as evidences of the prosperity of Mississippi, shown also in an increase in assessed values of property of between \$12,000,000 and \$15,000,000. The most superficial study of affairs in Mississippi during the past three or four years will reveal the reason for this prosperity in the broad-minded policy of the State administration, backed up by liberality on the part of the legislature. Mississippi authorities recognize the value of the great natural resources of their State, and are doing their best to hasten the development upon the lines of practical benefit to all the people.

On another page of this week's issue of the Manufacturers' Record is a review by Mr. D. A. Tompkins of the address on finance made a short time ago at Charlotte by Mr. Frank A. Vanderbilt, vice-president of the City National Bank of New York. The tenor of the address suggesting a modification of the national banking system in the direction of greater flexibility is significant in itself. That it should be delivered in the South by the representative of such a New York bank is more significant.

It is stated by the Daily Press of Newport News, Va., that the great shipyard of that place can employ profitably

between 2000 and 3000 additional men, increasing its force to about 8000. If this estimate is correct, a quick re-

sponse to the demand ought to give great impetus to the development of Newport News in many directions.

## THE BANKERS' CONVENTION AT NEW ORLEANS.

[Special Dispatch to Manufacturers' Record.]

New Orleans, La., November 12.

Aside from the interest attaching to the proceedings of the American Bankers' Association, now holding its twenty-eighth annual convention in this city, it is of notable significance and worthy of special comment that there is a larger attendance by about one-half than any previous convention has known. Interest in the South is so undeniably prevalent everywhere at the present time that these representative financiers have come from all parts of the Union not only to take part in discussions on banking and kindred topics, to "talk shop," as it were, but likewise more fully to inform themselves as to the material conditions which exist today in this much-discussed and rapidly-developing section of the country. New Orleans, the picturesque and romantic, which is entertaining this convention in characteristically hospitable and hearty manner, may have been responsible for some of the large increase in attendance as compared with former conventions, but the desire to know more intimately and accurately just what are Southern conditions has been the great attracting power. This is proved by the fact that a number of parties have already been made up for trips to various points and sections of the South after the convention closes. And it is revealed in the talk of the delegates among themselves in the corridors of the hotels where they congregate. It is in this regard, as well as for the compliment paid New Orleans and the South in the record-breaking attendance, that this convention may be looked upon with exceeding satisfaction by all who are interested in the welfare of the South, and it is inevitable that great and lasting good will result. There are large delegations from the Pacific coast, from the Lake regions and from the entire Atlantic seaboard, so that not only is the representation notable numerically, but because of its wide geographical distribution, as well as the next convention is likely to be held at San Francisco, the California delegation being well organized and conspicuously aggressive in its campaign; but it is safe to predict that wherever held, it will be long before the New Orleans high-water mark of attendance is passed, and that no more far-reaching effects will ever follow to the section in which the meetings will occur.

A more detailed account of the proceedings of the convention, which have not yet been concluded, and of the spirit and significance of the convention itself, will appear in the Manufacturers' Record of next week. Among features which may be mentioned at this time are the speeches of Mr. John Skelton Williams, banker, financier and railroad president, of Richmond, who flatly declared in favor of governmental supervision of trusts and other aggregations of corporate wealth, and of Congressman Charles N. Fowler of New Jersey, author of the much-discussed Fowler bill, providing for assets currency and branch banking. These two matters are engaging much of the thought of the attending delegates, and provoking much

discussion, pro and con, and will no doubt appear prominently in the resolutions to be adopted.

Congressman Theo. E. Burton of Cleveland, Ohio, is down on the program for an address tomorrow on financial crises. It is not impossible that in the closing hours of the convention some official recognition will be given to the existence of conditions which render wholly unreasonable the apprehension which has been raised in some quarters recently. As one delegate expressed it in private conversation today, there need never be a panic in a theater, even though the place were on fire, if the timid and the fools could be kept from shouting "fire," whereas unless a sane man with a voice that would carry could get up in time before an audience with his reassuring words, a stampede that would bring slaughter might follow an alarm where no fire really existed. With the enormous crops selling at good prices, with labor employed as it never has been before, with the domestic demand for iron and steel so great that home production has to be supplemented by imported raw materials, with the railroads unable to provide facilities for supplying the demand for every product, with every business crowded to the utmost with profitable operations, and with prosperity the universal condition, it is freely commented that anything like a serious financial disturbance would be the most flagrant case in history of a panic made to order by bungling hands incapable of measuring up to enormously-expanded requirements.

The closing details of the convention will include the selection and installation of new officers. The South is to be again recognized here in a pleasant way, the choice for president as announced by the committee on nominations being Mr. Caldwell Hardy, president of the Norfolk National Bank, Norfolk, Va. Mr. John Skelton Williams of Richmond is another representative of the South in the new list of officers, his name appearing among those who will compose the executive council of the association.

ALBERT PHENIX.

#### For Elastic Currency.

The American Bankers' Association adopted on Wednesday the following resolutions:

WHEREAS, experience has demonstrated the inadequacy of our present currency system, and believing that the best interests of the country demand a system flexible as well as stable; be it

**Resolved,** That the American Bankers' Association records its unqualified approval of the enactment of a law imparting a greater degree of elasticity to our currency system, making it responsive to the demands of the business interests of the country.

**Resolved,** That we favor the appointment by the president of this association of a committee of seven members of the association, selected with reference to their ability and high character as bankers and their experience in monetary affairs, and representing different parts of the country, for the purpose of carefully considering the entire subject and report to the next meeting of this association.

The Waycross (Ga.) Chamber of Commerce has elected Mr. J. Mitt Wells as secretary for one year.

## FOR CURRENCY REFORM.

## A Review of Mr. Frank A. Vanderlip's Address at Charlotte.

(Special Cor. Manufacturers' Record.)

Charlotte, N. C., November 7.

In the reports made in the Northern papers of Mr. Frank A. Vanderlip's speeches at Charlotte and Wilmington the headlines carry the idea that he sounded a note of warning. The impression produced was that Mr. Vanderlip apprehended a panic or a tight money market, whereas the warning, if it may be so called, related to a deficiency in one of the main features of the present banking system and of the importance of doing something to avoid an injurious effect upon business interests as a result of this deficiency and its further neglect. Mr. Vanderlip pointed out that the use of government bonds as a basis of bank-note issues is a very different thing now from what it was when the present national banking system was founded. Then government bonds were cheap, the interest was high and the quantity of bonds increasing. Now the bonds are high, the interest is cheap and the quantity of bonds decreasing. Then the government needed money, its credit was impaired by the vicissitudes of war, its treasury was empty, and the issue feature of the banking system was specially devised to force loans from the banks. Now the government does not need money, its credit is unimpaired in these piping times of peace, its treasury is full to overflowing, and the force-loan feature of the national banking system is not only no good, but absolutely very injurious. Then it was profitable for a bank to buy more bonds and issue more money if commerce made a demand for the money. Now, when the demands of commerce are most pressing, it is a most unprofitable thing for a bank to buy bonds and issue money. Therefore the elastic feature that was in the system when it was founded is now totally gone.

Mr. Vanderlip seems to advocate the abolition wholly or in part of government bonds as a basis of bank-note issue. He objects to the exclusive use of any bonds, national, State or municipal, for such purpose. He is inclined to think that the only proper basis of bank-note issue is bank assets. He would not, of course, consider for a moment any modification of the present banking law that would leave a possibility of doubt as to the value of a bank note. It must always be worth 100 cents on the dollar in gold. While in the majority of cases the assets of any national bank under proper control and regular inspection would be ample to secure the notes, he would, nevertheless, have the government maintain an ample guarantee fund, made up from the tax on bank-note issues, for the security of all bank notes where the assets might not possibly be sufficient to absolutely insure this security.

It has heretofore been thought that New York bankers were opposed to the plan of issuing bank notes on bank assets, but Mr. Vanderlip's position does not bear this out. A convention of bankers in Baltimore several years ago formulated and indorsed the plan of issuing bank notes on bank assets under certain tax restrictions and with a guarantee fund to be held by the comptroller of the currency. The monetary commission organized through the instrumentality of Mr. H. H. Hanna of Indianapolis reached the same conclusion. Students of finance have long since pointed out that the issue feature of our present banking system is dead, and that the best way to revive it is to abolish the use of bonds for guaranteeing bank notes and substitute the assets of a bank, supplemented by a guaran-

teed fund in the hands of the comptroller. Students of finance have been astonished at the apathy of manufacturers and merchants on this subject. The deficiency of the bank-note issue feature of the present national banking system is thought by many to be responsible for the severity of all our money squeezes and for the violence of such a panic as we had in '33. In case of a tight money market the banks throughout the country have to rely upon a few large centers to rediscount their paper. The large centers themselves are always hard pressed at such a time on their own account, and are less able to rediscount paper when it is most wanted than when business is in a normal condition. Except for the invention of clearing-house certificates in large centers, which are in reality money issued upon bank assets, the money centers could not stand the strain of any panic. The issue of these clearing-house certificates, being in reality bank notes issued upon assets, are of doubtful legality. If each bank throughout the country could rediscount its own paper on the basis of its assets, pay a tax on the notes issued, let part of the tax accumulate as a fund in the hands of the comptroller for a supplemental guarantee of all bank notes, we might still have a panic, but it would not be of a violent and destroying kind, and it would not be one where actual currency could not be obtained to meet ordinary pay-rolls. It would not be one to destroy a solvent institution or commercial house.

Mr. Vanderlip laid emphasis upon the importance of preserving a proper ratio between invested and quick or liquid capital, both in commerce and manufactures. He made it clear that the theoretic perfect ratio could not possibly be preserved because of the varying requirements of commerce and the manufactures from day to day. There are limits, however, beyond which this ratio should not go in either direction, and as long as the ratio is within these safe limits there is no serious strain and no possibility of a panic. When, by means of profits, the working capital is in excess of what is necessary there is a plethora of money, the interest rate becomes low, and the natural tendency is to force some of this working capital into investment. When, on the other hand, however, the proportion of invested capital becomes too great banks are pressed for loans, there is a deficiency of quick or liquid capital, then there is a tight money market and in extreme cases a panic. Because of the impossibility of preserving an absolutely fixed ratio, or even of determining a proper ratio, it is extremely important that the variations should be checked on either side by some elastic force.

A proper banking system should tend to reduce bank-note issues when money is abundant and to increase it when money is scarce. For this reason it is suggested by some of those who advocate the issue of bank notes upon the assets of the bank a tax upon note issues that increases as the issue increases, and which ultimately becomes high enough to practically force the retirement of the higher-taxed bank notes as quick as the extreme necessity for their issue is gone.

Mr. Vanderlip's suggestion was that any modification of the present national banking system would, in providing an elastic feature, make sure that the elasticity should work both ways, viz., provide for the issue of bills under pressure of the demands of commerce, and also provide for the retirement of bills under counter-pressure when the demand was gone or diminished. It is to have between these two various proportions of capital an india-rubber buffer, as it were, whose elasticity would allow variation between

legitimate limits without injurious jar, instead of the old buffer originally provided, and which used to be elastic, but which has now become, by changed conditions, as hard as glass.

The variation of the ratio between invested and quick capital is unavoidable. The quick capital in any section, while the crops are being made, is necessarily less than that required while the crops are being harvested and marketed. Then sometimes injurious variation is made by bad judgment. But in any case the pressure to restore normal conditions ought to commence gently, increase by degrees and move without any unnecessary destructive jar at any point.

A flexible feature of bank-note issue fulfilling these conditions would at the same time prevent inflation on the one hand and panic on the other.

D. A. TOMPKINS.

## IN THE BIRMINGHAM DISTRICT.

## Economies in Furnace Practice Being Considered.

(Special Cor. Manufacturers' Record.)

Birmingham, Ala., November 10.

The cost of making iron has become so great that many of the leading furnacemen of this district have begun to cast about for means to reduce it. One of the most expensive things is labor. Companies having their own coal, ore and limestone are able, with the present prices of iron, to make a good profit, but those which have to go into the market and pay the prices charged, along with the enormous cost of the men who do the work, have been greatly handicapped. Several plans have been discussed looking to this end. Some of them are to be put into execution in a short time. This is in the handling of stock by the furnaces. As it is now, the cost of the men is very heavy, even with the improved skip hoists. One big company reports that it costs now something like \$75 a day to pay men who handle the stock. It is estimated that with a plan worked out this can be reduced to \$7.50. It is proposed to operate a system of carriages so arranged that nearly all of the carrying and loading will be done by machinery. The details of the plans are not yet made public.

The announcement that the State will not work convicts in mines, save under State supervision, is a matter of the greatest interest to makers of iron in this district. Two corporations, the Tennessee Coal, Iron & Railroad Co. and the Sloss-Sheffield Steel & Iron Co., use convicts, and it is said are given a great advantage because of them. It is contended, however, that the working of the convicts has not been remunerative. The employers of the convicts and the State officials are consulting over the matter.

The Republic Iron & Steel Co. has begun work on remodeling its two old furnaces at Thomas, and will, when they are finished, have one of the finest plants of three stacks in the South. Though this is not authoritative, it is presumed that they will be made to produce 1000 tons a day. The work now is in raising the stacks and making them more compact. More boilers are being put in, and two new stoves, to cost \$20,000 each, will be installed. New skip hoists of the latest pattern have been decided upon, and the stockhouse will be arranged so that the cost of labor will be reduced to a minimum. District Manager W. H. Hassinger says the company is doing splendid work at all its plants, and that conditions from any standpoint are good. The new No. 3 is making right along about 300 tons a day running high in foundry, and the old furnaces are doing nobly. A day's record of one of these shows 149 tons of No. 1 and 2 out of 160 tons. Sometimes this

furnace runs as high as 200 tons. The rolling mills are busy trying to keep up with orders, but the bar-iron trade is not as stiff as pig. This is accounted for in the high price of pig.

The total output for the seven furnaces of the Sloss-Sheffield Steel & Iron Co. in October was 31,344 tons. Last week the output was 1220 to 1240 tons a day, with an average of over 98 per cent. foundry iron. The October record was made with forty-one days in all lost, one furnace being out twenty-eight days and one thirteen. This left 169 working days in all to be used in the production of the output—a fine showing, surely. President Mayben, who was seen by the correspondent of the Manufacturers' Record, said that the affairs of the company are in splendid shape, the only trouble being inability to have the stuff moved, the lack of cars and motive power in the district being so manifest. Mr. Joseph Bryan of Richmond, one of the directors, is in the city to meet a party of directors and stockholders coming the latter part of the week. The party will include the new Canadian holders of the stock, who will make their first trip to the district.

The Oxmoor furnace of the Tennessee Coal & Iron Co. is ready to be fired up, the idea being to set it going today. Only one stack will be used now, the other to be gotten in shape later on. The output is expected to go to 125 tons from the first. W. W. McKeown of Chicago has been put in charge as furnaceman. The second stack cannot be put in until some engines and stoves and other accessories taken last winter to Ensley have been returned. The Oxmoor is admirably situated. T. T. Hillman and associates made an effort to buy it some months ago, and almost had a trade closed when the Tennessee Company decided to keep it. It is one of the oldest furnaces in the district, and one of the most conveniently situated. It has been out of blast for some time, the intention up to a short time ago of the owners being to move it to Ensley and consolidate it with the others there.

So much pressure has been brought to bear on the railroads that some are making heroic efforts to relieve the scarcity of motive power and cars. The Louisville & Nashville, which does not operate trains on the Birmingham Mineral on Sundays, uses that time to catch up on the main line with all business aggregated during the week, taking all trains from the Mineral on that day. The Southern has announced that it will have a dozen big engines here in a few days, bringing them from other divisions. One company was short 30,000 tons on coal orders because of shortness of cars.

Local steel men are giving very careful attention to the invention of Mr. Henry Knoth of the steel mill of the Republic Iron & Steel Co., with which he expects to make a change in the process. His idea is to charge molten metal instead of scrap, saving as a result the cost of scrap and reducing the time between heats. The pig metal is to be used in a molten condition, so that nothing but hot metal goes into the furnace, and the reaction beginning at once, the heat is ready to be tapped in from four to five hours. The process is said to double the output of a furnace and reduce the cost of labor. The head of one of the big concerns of the district says: "Henry Knoth knows what he is doing." That was all he had to offer on the subject.

The going to Gadsden of the Schulers and their announced determination to build four furnaces and one steel mill has made property at that place very high. It has also aroused many rumors of new lines of railroad and new industries. One of these is a road to be built from Gads-



den to Alatoona, on the Birmingham Mineral. It will penetrate a fine section of timber lands, and will open also some good mineral. Much of the land through which it would run has been bought up, Capt. J. H. Elliott and friends anticipating such action, it is thought. The route was surveyed some time ago.

The mill of the Alabama Tube & Iron Co. at Helena is busy working 250 men and turning out over thirty tons a day of small pipe. This is one of the most substantial industries of the district, and the only thing of its kind in the South. The handsome exhibit at the State Fair has been brought to the city, and is on exhibition at the company's office in the Woodward Building.

Material will be placed this week for the hot-air plant which will be erected by the Birmingham Railway, Light & Power Co. President Robert Jemison states that work will be inaugurated in less than a month. The system will consist of a series of steam pipes sent out from the company's big power plant, with which residences in the city will be heated. The total cost is not given.

The meeting of the representatives of the Southern lumber dealers in Louisville, which cut down the prices of several grades of goods, has been noted here. Local dealers do not think there is much reason to cut, though, as prices are holding up well. However, the list will be adhered to, and it is not thought it will do harm, as there is a slack demand for two or three grades now. Flooring, which was reduced \$1, is "on the mend," however, and may soon get back. Trestle and car timbers are so high in demand that they will not suffer any reduction; in fact, not enough of them can be found. A local lumber dealer says timber lands are very hard to find; that lands that could have been bought two years ago for \$5 an acre cannot now be secured for three times that amount. The Sample Lumber Co. is pushing its new railroad from Overbrook, on the Central of Georgia, to the new possessions in Coosa and other Alabama counties. Saw-mills and planers have been put to work; the excess output of the saw-mills is taken to Hollins for planing and finishing. The mill has been repaired, and now has a yearly capacity of 36,000,000 feet.

The mines of the Lehigh Coal Co. in Blount county are now turning out a good output of coal, and expect to be shipping 500 tons a day by the first of January. Sixty houses have been built, and a large commissary is going up. The coal is soft, and works well. H. W. L.

#### Iron Ore in Indiana.

A dispatch from Indianapolis says that iron ore has been discovered in the southwestern part of Indiana, and President David M. Parry of the Indianapolis Southern Railway Co., which has the right of way through part of the ore territory, is quoted as follows regarding the discovery:

"It is true that valuable deposits of iron ore have been discovered in Sullivan county, but we are not advised as yet regarding their extent, though they are enormous. Sixty days ago we employed three iron-ore experts, and their reports will be submitted to us some time within the next ten days.

"While we do not know what the details of that report will be, we do know that the ore has assayed remarkably well, running from 60 to 70 per cent. pure, and that the indications are that the ore is practically inexhaustible. In addition to this ore, there has been discovered a 40-inch vein of coal which is almost pure charcoal, and it can be utilized for smelting the ore without coking. The experts have in-

formed us that the iron ore is much better grade than that at Birmingham, Ala., and the discovery is destined to revolutionize the iron industry in this part of the country.

"Some of this ore is on the right of way of the Indianapolis Southern Railroad, but much of it is on lands now held by other people. The whole territory is rich in iron, coal and building stone, and the first steps toward the development of the ore and building stone deposits will be taken in a short time. The discovery is certainly the most important to the people of Indiana since natural gas was discovered and utilized, and it will give an impetus to industrial growth second only to the strides which Indiana has taken through the natural-gas discovery."

#### FOR PAPER MILLS.

##### The South Rich in Raw Material for the Industry.

In a letter to the Manufacturers' Record Mr. Armand May of Atlanta, Ga., writes:

"I am glad to note that you gave my letter attention, and will take the matter a little further, and at the same time furnish a few interesting facts.

"Wood is the principle article used in the manufacture of papers, including news, wrapping and some fine papers.

"The list of fibers suitable for making paper are divided in four classes, as follows:

"Seed fibers, as cotton, which is the only representative of its class. Bast fibers, as linen, jute, manila, etc.

"Those derived from stems or leaves, as straw, esparto, sorghum, bamboo and cornstalk.

"Those derived from wood.

"It needs only a moment's reflection to see that the South is particularly rich in all these forms of vegetation. The production of cotton is confined to the Southern States; hemp, jute and similar plants abound in many of them, and straw and sugar-cane, etc., are obtainable in vast quantities. But it is especially in the extent and variety of its woods that the South is rich. Professor Sargent, in the tenth census of the United States, gives a list of woods which are suitable for paper-making, most of which have been used on some scale, depending upon the relative cost and other commercial factors. This list includes almost all the woods grown in the South, and the names of many which are strictly peculiar to the South. They are:

"Gray pine, white pine and thirty-three other varieties of pine.

"White fir.

"Balsam, which is found in great quantities in the mountains of North Carolina and Tennessee.

"Hemlock.

"Larch.

"Poplar, very abundant in North Carolina, Kentucky and Tennessee.

"Aspen.

"Cottonwood, found in vast quantities throughout the South.

"Sweet gum, found in the valleys of the lower Ohio, White and Wabash rivers as far south as Tampa, Fla., throughout Missouri, Arkansas, Indian Territory and the valley of the Trinity river, Texas.

"Cypress, found throughout the Gulf States and a good many others.

"Beech.

"Silver maple.

"Basswood.

"White birch.

"Buckeye.

"Black willow.

"Locust.

"Chestnut.

"Thus every Southern State has one or more varieties of trees included in this

list. The whole wooded area of the United States amounts to 1,094,000 square miles, which is 37 per cent. of the total land area, exclusive of Alaska.

"It may not be generally known that the South is par excellence the forest section of the country. Scarcely a State but has more than the average percentage of wooded area, and over one-third of the whole forests of the country are to be found in fourteen Southern States:

"I will only give a few of the States:

State.	Total wooded area, square miles.	Percentage of land area.
North Carolina.....	35,300	73
South Carolina.....	20,500	68
Georgia.....	42,000	71
Florida.....	37,700	70
Alabama.....	38,300	74
Mississippi.....	32,300	70

"Thus the South has a practically inexhaustible supply of wood.

"The volume of the output of the paper mills of this country is appreciated by only those who have made a study of the matter. The total annual output is approximately 2,500,000 tons. It may aid to a conception of what this figure means to say that this is 400,000 tons more than the annual production of cotton in the United States; that it is four times as much as the annual consumption of cotton in the United States; that it is twice as much as the annual consumption of all fibers in the United States, including cotton, wool, jute, etc.; that it is about 200,000 tons less than the world's consumption of cotton for 1897.

"The value of this great output is over \$200,000,000. If the South sees its opportunity and can secure a part of this industry it would be of vast benefit to it, and do quite as much to awaken it industrially as has the starting of cotton spindles and the iron furnaces on Southern soil.

"It is estimated that the United States makes 35 per cent. of all the paper produced in the world, and it is not too much to say that with the South it has natural resources enough to produce it all.

"Our exports of paper are now between \$6,000,000 and \$8,000,000 worth, and are increasing. With paper mills along the South Atlantic seaboard and in the Gulf States we should control the Central and South American trade, of which we are at present getting but a small proportion.

"This gives an idea of the vastness of the paper industry. A thorough investigation would be certain to result in the starting of making paper in the South.

"I have a party in North Carolina who is anxious to start to make paper, and would have secured the extra capital were it not of the total ignorance of the Northern capitalist of the many advantages offered by the South and the ignorance of paper-making by Southern capitalists.

"The Manufacturers' Record no doubt has the best hold on the people, and the South owes it the credit for the cotton mills. I hope that through your efforts we will see the results in model paper mills all over the South."

#### A Chance at Macon.

In a letter to the Manufacturers' Record Mr. C. D. Judson, vice-president of the Georgia Title Guaranty & Trust Co. of Macon, Ga., writes that there is a demand in Macon for small and comfortable houses for rent. He says that a company manufacturing men's underwear and employing 100 to 120 young women desires to interest investors in the erection of a number of cottages convenient to its works for families of its employees, and also in the erection of a boarding-house for young women. The company, Mr. Judson writes, will guarantee the rent of the boarding-house and of such of the cottages as may be occupied by families of

employees. It is estimated that the proposition will require an investment of \$50,000. Mr. Judson adds that there is ample demand in Macon for twice the number of cottages proposed, irrespective of families having members in the employ of the company mentioned.

#### Ohio River Improvement.

Several hundred delegates are in attendance this week upon the annual convention at Parkersburg, W. Va., of the Ohio River Improvement Association. The keynote of the convention is that the construction of the Isthmian canal will necessitate changes in river improvement plans and a nine-foot stage will be necessary instead of a six-foot stage, as at present arranged for by the government's appropriations. Then boats can be loaded at the headwaters of the Ohio and transported without reloading to the Pacific.

From the Johns Hopkins Press has appeared the souvenir volume of the celebration of the twenty-fifth anniversary of the founding of the Johns Hopkins University and the inauguration of Dr. Ira Remsen as president. The volume contains the names of representatives of other universities and colleges at the celebration, complete records of the two days' proceedings, including full reports of addresses by Drs. Remsen, Gilman, Wilson, Peterson, Hadley, Dabney, Harper, Eliot and Governor Smith of Maryland; the details of the inauguration of President Remsen and of the conferring of honorary degrees, the speeches made at the alumni banquet by Drs. Boyce, Eliot, Remsen, Gilman, Angell, Patton, Alderman and Hadley, with a list of the invited guests and subscribers. In addition, there is an account of the presentation to Professor Gildersleeve of a volume of studies in honor of the seventieth anniversary of his birth and of other social functions connected with the celebration. The volume is a credit to the Hopkins Press, and will be preserved by everybody concerned in the celebration.

Part II of Volume IV of the Lower Norfolk County Virginia Antiquary, edited by Edward Wilson James, Esq., of Norfolk, contains an exceedingly interesting account of the inauguration in 1816 of the first steamboat service between Norfolk and Richmond by way of the James river. This account is based upon the printed records of the time, and throws much entertaining and valuable light upon social customs of that day. Other features are a sketch of the late Edward Eggleston, to which is appended a letter received by Mr. James from Mr. Eggleston telling of the value to his work of the Antiquary; a brief sketch of the history of Trinity Church, Portsmouth; a list of the pupils of a famous private school in Norfolk, and other material gleaned from church and county records.

The Chattanooga Manufacturers' Association has been organized with more than 100 chartered members, and with Gen. Willard Warner, Capt. H. S. Chamberlain, Messrs. C. D. Mitchell, J. A. Patten, C. F. Willburn, M. M. Hedges, E. B. Thomason, Robert Morrison and J. C. Guild as the board of governors.

The Baltimore & Philadelphia Steamboat Co. has awarded a contract to the Harlan & Hollingsworth Company of Wilmington, Del., for two new steamers with a speed of nineteen miles per hour. They are to be 205 feet long, with triple-expansion engines, and will carry 1000 passengers.

A dispatch from Beaumont, Texas, says that at present more oil is being shipped daily than is produced.

## RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### THE SANTA FE'S NEW SHOPS.

**Extensive Improvement of the Company's Plant at Topeka.**

The new shops of the Atchison, Topeka & Santa Fe Railroad at Topeka, Kan., an extension of the old shops there, are now nearing completion, and are among the largest, and among the best equipped of any similar shops anywhere. The main shop, which will be the chief locomotive erecting, machine, boiler and tender works of the system, and the only erecting works of the company, is 850x150 feet in dimensions. It is of steel construction throughout, with tile roof, and with the machinery installed will represent an investment of about \$1,000,000. It was expected that everything would be in readiness for operating the new shops by the first of the year, but unavoidable delay in getting in some of the machinery may cause a postponement somewhat beyond that date. However, under the direction of George R. Henderson, superintendent of motive power of the system, the work is being pushed forward as rapidly as may be.

There are a number of novelties to be introduced in the operation of these shops, a complete enumeration of which would require much space. Notable among them is the use of automatic machinery throughout and the general use of electric power. In the detached boiler-house with boilers of 1600 horse-power, the coal will be handled automatically, no hand shovels being used for either unloading the coal, stoking or removing ashes. From the coal pit, where the coal is dumped from the cars and crushed by power, the coal will be conveyed by an endless chain of buckets or steam shovels to the magazines, from which it will be automatically fed into the furnaces, and the same buckets, on their return, will be utilized to remove the ashes.

Ball tandem engines will be used in the shops, and there will be three dynamos of 200-kilowatt units and one of 75 kilowatts. Hydraulic power and compressed air will also be used where best adapted. In a riveting tower will be 12 and 17-foot hydraulic riveters, an hydraulic accumulator for furnishing the power being located in the boiler-room. For machine riveting, pneumatic hand tools will be used. An Ingersoll-Sargeant cylinder, on the end of a Corliss engine, arranged tandem, provides the air compressor.

On one side of the shop all the heavier tools will be located, and here each tool will have an independent motor. On the other side the lighter tools will be driven in groups, shafting being used.

Two 60-ton traveling cranes are to be installed in the shops, and two five-ton cranes will serve the machinery. The method of handling engines for repairs will be different from that usually in vogue, and contemplates the greatest possible degree of convenience and economy of labor.

One conspicuous innovation is in the working of a 450-ton flange press. It is to be run by hydraulic power, and the sheets are to be taken directly from the furnace. In this way it will take but three or four minutes to flange a sheet, whereas the old method required several hours.

This mammoth shop will also show a novelty in the method of heating. There will be no overhead steam pipes to take up room and overheat the air above. The exhaust steam will be conveyed from the boiler-room in tunnels. Heating coils are stationed in four alcoves on the sides of the shops, and the heat will be blown by

Sturtevant fans through tunnels and out of registers throughout the building.

The comfort of the 2000 hands which will be employed is further provided for in the construction of three large brick toilet-houses, where will be lockers for clothing, washbasins and bathrooms.

It is probable that at these shops three or four new engines will be constructed each month and about thirty repaired.

A new blacksmith shop 400x100 is also nearing completion. Its distinguishing characteristic is its roof construction, all of heavy steel, so arranged that a crane can be attached or block and tackle swung from any place. The machinery here is also to be run by electricity. The furnaces are equipped for the use of Beaumont oil.

Later on it is probable there will also be an extension of importance made in the car shops at Topeka.

### Railroad Reports.

In calculating the increases or decreases of earnings, comparisons are made with the corresponding periods of 1901.

The Louisiana & Arkansas Railroad reports for July gross earnings \$37,119, increase \$6326; expenses and taxes \$24,012, increase \$4429; net earnings \$13,107, increase \$1897.

The Atchison, Topeka & Santa Fe Railway reports for September gross earnings \$5,141,070, increase \$128,840; expenses \$3,190,799, increase \$380,364; net earnings \$1,950,271, decrease \$251,524; tax and rent \$183,943, increase \$15,752; surplus \$1,766,328, decrease \$267,276. For three months gross earnings \$14,596,063, decrease \$120,740; expenses \$9,189,357, increase \$736,876; net earnings \$5,406,706, decrease \$857,616; tax and rent \$563,288, increase \$54,780; surplus \$4,843,418, decrease \$912,396.

The St. Louis Southwestern Railway reports for September gross earnings \$649,025, increase \$39,829; expenses \$405,280, decrease \$29,211; net earnings \$243,745, increase \$69,040. For three months gross earnings \$1,705,395, increase \$27,283; expenses \$1,239,734, decrease \$113,494; net earnings \$465,661, increase \$140,777. Betterments included in operating expenses, September, 1901, \$27,302; September, 1902, nothing. There was expended for betterments and charged to general improvement fund September, 1902, \$77,063.52.

The Maryland & Pennsylvania Railroad Co. reports for the seven months ended September 30 gross earnings, \$171,864.53; operating expenses, including taxes, \$120,680.98; net earnings, \$51,174.55; all fixed charges, \$20,123.53; surplus, \$31,051.02. For September gross earnings, \$31,493.84; operating expenses, including taxes, \$20,081.46; net earnings, \$11,412.38; all fixed charges, \$2874.79; surplus, \$8537.59.

The Southern Railway Co. reports for September gross earnings \$3,620,342.44, increase \$528,014.73; expenses and taxes \$2,445,681.90, increase \$419,181.71; net earnings \$1,174,660.54, increase \$108,833.02. Per cent. expenses to earnings in 1902, 67.55; 1901, 65.53. For three months gross earnings \$10,410,014.97, increase \$1,327,097.35; expenses and taxes \$7,387,813.98, increase \$1,029,219.26; net earnings \$3,022,200.99, increase \$297,778.02. Per cent. expenses to earnings in 1902, 70.97; 1901, 70.

The Central of Georgia Railway reports for September gross earnings \$820,252, increase \$230,409; expenses and taxes \$607,011, increase \$191,651; net earnings \$212,641, increase \$38,757. For three months gross earnings \$2,180,273, increase \$422,374; expenses and taxes \$1,613,637, increase \$327,832; net earnings \$566,636, increase \$94,541.

The Chattanooga Southern Railroad reports for September gross earnings \$9473, increase \$2488; expenses \$8100, decrease \$3101; net earnings \$1643, increase \$5589, there having been a deficiency last year. For three months gross earnings \$32,216, increase \$6581; expenses \$27,127, decrease \$9794; net earnings \$5089, increase \$16,375.

The Wrightsville & Tenuille Railroad reports for September gross earnings \$17,900, increase \$6416; expenses \$8947, increase \$1187; net earnings \$8953, increase \$5229; other income \$377, increase \$219; total net earnings \$9330, increase \$5448. For three months gross earnings \$40,898, increase \$11,939; expenses \$26,094, increase \$4152; net earnings \$14,804, increase \$7787.

The Kansas City Southern Railway reports for September gross earnings \$495,660, increase \$53,916; expenses and taxes \$383,728, increase \$67,885; net earnings \$111,932, decrease \$13,969. For three months gross earnings \$1,487,971, increase \$220,390; expenses and taxes \$1,126,171, increase \$203,494; net earnings \$361,799, increase \$16,896.

The Georgia Railroad reports for September gross earnings \$219,459, increase \$71,209; expenses \$122,078, increase \$18,786; net earnings \$97,381, increase \$52,423. For three months gross earnings \$504,380, increase \$124,614; expenses \$352,007, increase \$27,455; net earnings \$188,373, increase \$97,159; other income \$30,000, increase \$30,000; total income \$218,373, increase \$127,159.

The Mexican Central Railway reports for September gross earnings \$1,679,027, increase \$352,437; expenses \$1,242,967, increase \$247,001; net earnings \$436,060, increase \$105,436. For nine months gross earnings \$15,170,635, increase \$2,300,033; expenses \$10,711,838, increase \$1,276,876; net earnings \$4,458,797, increase \$1,023,157.

The Missouri Pacific Railway reports for August gross earnings \$3,312,546, decrease \$187,904; expenses \$2,132,171, increase \$12,934; net earnings \$1,180,375, decrease \$200,838. For eight months gross earnings \$23,599,578, increase \$158,224; expenses \$16,353,917, increase \$1,355,531; net earnings \$7,245,661, decrease \$1,227,307.

The Lexington Railway of Lexington, Ky., issues the following statement for five months ended September 30: Gross income, 1902, \$138,330.49; 1901, \$133,950.67; operating expenses, 1902, \$73,460.67; 1901, \$78,496.95; net income, 1902, \$64,869.82; 1901, \$55,453.72; fixed charges, 1902, \$22,124.12; 1901, \$20,797.51; surplus, 1902, \$42,745.70; 1901, \$34,656.21.

The Northern Central Railway Co. reports for September the following changes in earnings and expenses: Gross earnings, decrease, \$56,000; expenses, increase, \$33,600; net earnings, decrease, \$89,600. For nine months gross earnings, increase, \$46,400; expenses, increase, \$77,200; net earnings, decrease, \$30,800. Comparisons are made with the corresponding periods of last year.

### Improvements at Keyser.

Mr. W. A. Liller, general contractor, of Keyser, W. Va., will do considerable of the work for the improvements of the Baltimore & Ohio Railroad at that point. He writes to the Manufacturers' Record that he has the contract for a 25-stall roundhouse, an 80-foot turntable, a machine shop 35x100 feet, an oil and store house 50x100 feet, an asphalt 35x250 feet with electric hoist, etc., the drainage system, the trainmen's office building and a hot well. The work is to be commenced immediately and pushed rapidly to completion. The contractor expects to need for

this work structural iron, cement, 4000 cubic feet of granite for coping, etc., sash, doors, yellow-pine frame lumber, terra-cotta, cast-iron sewer pipes, etc. Mr. J. E. Greiner, B. & O. engineer of bridges and buildings, Mt. Royal Station, Baltimore, will have charge of these improvements, and they will be under the direct superintendence of C. James, engineer, of Cumberland, Md.

### Growth on the Santa Fe.

A comparison of the annual reports of the Atchison, Topeka & Santa Fe Railway system for 1875 and 1902 shows how the great Southwest and the great Santa Fe have grown in twenty-seven years.

For example, in 1875 the gross earnings of the Santa Fe were \$1,500,000; operating expenses, \$700,000, and net earnings, \$800,000; while in 1902 the gross earnings were \$59,100,000; operating expenses, \$33,900,000, and net earnings, \$25,200,000—in other words, the computations now are by millions instead of hundreds of thousands.

As to mileage, the growth has been equally rapid. In 1875 the road only extended from Kansas City and Atchison to Wichita and Pueblo, 711 miles. On June 30, 1902, the main-track mileage operated was nearly 7900, which has since been added to considerably by acquisition of new lines.

Twenty-six years ago the rolling stock consisted of 38 locomotives and 1028 cars, including two Pullmans. This year the footings are 1312 locomotives and 36,370 cars.

Then the car mileage was 11,164,000 and the engine mileage 1,100,000. Now it is 519,000,000 and 40,700,000 miles, respectively.

### 'Frisco and New Orleans.

Reports that the St. Louis & San Francisco Railroad will build an extension to New Orleans continue to come from Louisiana. Dispatches from Alexandria, in that State, say that the engineers employed under A. L. Phillips on the survey for a railway from Alexandria to New Orleans are 'Frisco system men, and furthermore, that the 'Frisco will build an extension of its Louisiana & Arkansas Railroad from Winnfield to Alexandria, and thence to the Crescent City.

Another report is that the 'Frisco will use its extension from Coldwater east to Trinity, La., in order to get to New Orleans by way of Natchez, Miss., but the rumor most generally accepted is that regarding the Alexandria route. It is further reported from New Orleans that options for lands for terminals are being secured there by people supposed to represent the 'Frisco system.

### Royal Blue Book.

The book of the Royal Blue for November is entitled the "Sportsmen's Special Number." The opening article, which is handsomely illustrated with hunting scenes, notes important changes in the game laws of Delaware, Maryland, Virginia, West Virginia and Ohio. The second contribution describes "Where Game and Fish Are Abundant in Maryland and West Virginia," and it also tells how to reach the famous hunting and fishing grounds. "The Passing of the Diamond-Back Terrapin" is another timely article, which, like its neighbors, is handsomely illustrated. A table of game laws in Maryland and West Virginia completes the book.

### 'Frisco Magazine.

The 'Frisco system magazine for November, issued by the passenger department of the St. Louis & San Francisco



Railroad, opens with an article entitled "A Glance at the Industrial Southwest." Another excellent article, illustrated with half-tones, is called the "Kingdom of Apples." D. O. McCray contributes an interesting description of the Ozark mountain region which he calls the "Wonderland of America." Other contributions are "A Missouri Vineyard," "Typical of the West," "Diversified Farming in Texas," and "Okeene," all of which are illustrated.

#### Silver Service for General Hood.

Gen. John M. Hood, formerly president of the Western Maryland Railroad, and now president of the United Railways & Electric Co. of Baltimore, has been presented with the handsome silver service ordered some time ago by a large number of business men to be a testimonial of their esteem for General Hood and his services in building up the Western Maryland, of which he was the chief executive for twenty-eight years. The committee presenting the testimonial consisted of Messrs. Francis E. Waters, Henry J. Bowdoin, George R. Gehr, William Updegraff, John B. Ramsay and Francis T. Redwood. The service consists of eight pieces, appropriately inscribed. It was manufactured by the Samuel Kirk & Son Co. of Baltimore.

#### L. & N. Report.

The annual meeting of the Louisville & Nashville Railroad, held recently in Louisville, received the annual report, but postponed the election of directors until December 17. The report shows for the fiscal year ended June 30 as follows: Net income, \$4,725,307.11; gross earnings from freight, \$22,772,175.67; passenger, \$6,217,803.38; mail, \$773,640.80; express, \$634,146.18; miscellaneous, \$314,491.34; total, \$30,712,257.37. The growth in traffic in ten years is found in the gross earnings comparison: 1891-1892, \$22,403,639.25; 1901-1902, \$30,712,257.37.

#### Railroad Notes.

The Louisville & Atlantic Railroad has been completed to Beattyville, Ky.

The Western Maryland Railroad Co. has given an order to the Cambria Steel Co. for 300 steel hopper coal cars with a capacity of fifty tons each.

The Southern Railway will, it is reported, soon build a new passenger station at Rome, Ga. The company has recently completed a new depot at Calhoun, Tenn.

The meeting of stockholders of the Atlantic Coast Line for the purpose of approving the issue of \$15,000,000 additional stock to complete the deal for the Louisville & Nashville Railroad is to be held at Richmond, Va., on November 17.

An effort is being made at Chattanooga, Tenn., by J. W. McFarland, F. A. Dowler, Frank G. Martin and others to secure suitable buildings for the convention of the National Association of Street Railway Men next year, which will go to Chattanooga if accommodations can be obtained.

The Tennessee River Improvement Association, in convention at Florence, Ala., elected Mr. Thomas R. Roulhac of Sheffield, Ala., president, and Mr. J. A. Patten of Chattanooga, Tenn., secretary and treasurer. The convention stands for the improvement of the whole river, the construction of an isthmian canal and the establishment of the Southern Appalachian Forest Reserve.

The sales in the Joplin (Mo.) district during the week ended November 8 were 7,595,590 pounds of zinc ore and 978,520 pounds of lead ore, valued in all at \$148,926.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

#### Greenville's Finishing Plant.

Construction work on the finishing plant of the Union Bleaching & Finishing Co. at Greenville, S. C., referred to last week, will be begun at once, and is expected to be completed by April next. This plant will be equipped with the most modern machinery obtainable for bleaching, dyeing and finishing all kinds of cotton piece goods. The initial capacity will be ten tons daily, or about 100,000 yards of cloth. All contracts for erecting buildings and furnishing machinery have been awarded, and the architects-engineers in charge of construction and installation are Messrs. C. R. Makepeace & Co. of Providence, R. I. The investment will be about \$200,000. Electricity will furnish the lighting. About 125 men will be employed. The company has recently elected James B. Duggan of Utica, N. Y., president; B. N. Duke of New York and Durham, N. C., vice-president; R. B. Arrington of New York, secretary-treasurer. The directors are Messrs. Duggan, Duke and Arrington, J. B. Duke, Thomas F. Ryan and Anthony N. Brady, all of New York city; S. A. Beardsley, W. W. Fuller, B. N. Duke and W. A. Erwin, all of Durham, N. C. Mr. Duggan writes the Manufacturers' Record: "Our force of skilled men will be the best that can be secured. We have an abundant supply of pure, soft, mountain spring water, a very essential necessity in this business, and we will turn out a class of work equal to that of the best concerns of this character in the North. We feel that this is an industry that is badly needed in the South, as at present all of the convertible goods made in the South are sent to the Northern bleacheries and finishing works, and that portion of them consumed in the South is returned again for sale. This is an anomalous state of affairs, and there is no reason why the cotton goods made in the South and consumed in the South should not be bleached and finished in the South."

#### Ginning 1902 Cotton.

Mr. S. N. D. North, chief statistician for manufactures of the census office, has made to Director William R. Merriam a report by States and Territories of the quantity of cotton ginned from the growth of 1902 up to and including October 18, 1902, as follows:

States and Territories.	Cotton ginned up to and including Oct. 18, 1902, in bales.	Active ginneries reporting, number.	Estimated percentage of total to Oct. 18.
Alabama.....	585,783	3,854	65.0
Arkansas.....	360,800	2,405	45.2
Florida.....	29,779	284	57.7
Georgia.....	906,949	4,891	71.8
Indian Territory.....	201,019	427	52.3
Kentucky.....	284	3	46.0
Louisiana.....	369,408	2,098	43.2
Mississippi.....	559,126	4,083	44.7
Missouri.....	14,903	57	49.0
North Carolina.....	303,029	2,590	60.3
Oklahoma.....	84,689	210	40.0
South Carolina.....	601,431	3,082	72.8
Tennessee.....	121,180	752	50.2
Texas.....	1,781,797	4,509	70.4
Virginia.....	5,625	39	49.0
United States.....	5,925,872	29,314	60.1

The statistics of the quantity of cotton ginned were collected through a personal individual ginneries canvass of the cotton States by 626 paid local special agents of the census office. The estimate of the

percentage of the total crop ginned to and including October 18 is based on the estimates of these local agents, who were instructed to confine their estimates to the territories canvassed by them and to the knowledge gained therefrom. The census office assumes no responsibility for the accuracy of these estimates. This report will be followed by a second, showing the cotton ginned up to and including December 13, and a third and final report, to be made in the early spring, will cover the total crop of the season. The final report will distribute the crop by counties, segregate the upland and Sea Island cotton, show number of round and square packages and give weights of same.

#### The Watts Mills.

Announcement was made last month of the incorporation of the Watts Mills of Laurens, S. C., with the capital stock placed at \$200,000. The incorporators were Messrs. W. E. Lucas, W. A. Watts, J. D. Watts, J. O. C. Fleming and W. W. Ball. They have now effected permanent organization and decided that the company will build for an installation of 15,000 spindles and 500 looms. The product will be fine cotton goods, and the mill will employ about 200 operatives. J. E. Sirrine of Greenville, S. C., is engineer in charge of erecting and equipping plant, and will soon be able to state further particulars concerning the enterprise. New York capitalists will be interested as investors. W. E. Lucas has been elected president and treasurer. He is also president of the established Laurens Cotton Mills, a \$350,000 plant.

#### Norfolk Yarn Mills.

A charter has been granted at Norfolk, Va., to the Norfolk Yarn Mills, with capital stock placed at \$40,000 and having privilege of increasing to \$100,000 whenever desired. The company has leased the old Lambert's Point knitting-mill property, and will remodel same into a cotton-yarn-spinning plant, to give employment to about 100 operatives. Officers have been elected as follows: President, Barton Myers; vice-president, Robert M. Hughes; secretary, C. Brooks Johnston, and treasurer, F. M. Killam. They, with Messrs. B. P. Loyall, E. Vance, Nathaniel Beaman, John T. Bolton and Walter H. Taylor, are the directors for the first year. Samuel Stead, until recently superintendent of the Wabash Mills, a \$50,000 yarn plant in Philadelphia, Pa., will be superintendent.

#### A 250-Loom Gingham Mill.

Another cotton factory will be established at Greenville, S. C. It will be a plant of 250 looms and necessary complement for the manufacture of gingham cloths, and the contract for the necessary machinery is to be signed during the present week. The Huguenot Mills will own and operate this new plant as an addition to its present factory of 6000 spindles and 320 looms, where the product is cottonades, chevrons, etc. The company has purchased certain lands, mill buildings and operatives' cottages formerly used as a cotton-manufacturing plant, to be remodeled and re-equipped for the gingham mill. It is the old Camperdown mill property that will be utilized. The O. A. Robbins Co. of Charlotte, N. C., is engineer in charge of the new plant.

#### A Weaving Mill.

B. G. Rhyne and associates will build a mill for weaving fine cotton goods at Gastonia, N. C. They have contracted for the erection of a building, which is now in course of construction. This structure

will be of frame, 24x60 feet in size, and will be equipped with twenty looms. These will be 40-inch 7 to 16-harness dobby looms, and they have been ordered from the manufacturers. The power will be furnished by another manufacturing enterprise owned by the parties referred to above. The new mill will buy its yarns and warps from the Modena Cotton Mills, a Gastonia plant operating 9000 spindles and 208 looms. Mr. Rhyne will be superintendent and general manager, and his associates are members of his family.

#### The Cotton Movement.

In his report for November 7 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the sixty-eight days of the present season was 3,679,710 bales, an increase over the same period last year of 286,535 bales. The exports were 1,769,135 bales, an increase of 108,873; takings by Northern spinners, 442,931 bales, an increase of 2923; by Southern spinners, 449,193 bales, an increase of 46,882 bales.

#### Textile Notes.

The property of the Ettrick Manufacturing Co. of Petersburg, Va., will be offered at public sale on November 27. The mill has 9184 spindles and 264 looms. A deed of trust from the company has brought about the sale. Messrs. Alex. Hamilton and W. Brydon Tennant are the trustees in charge.

A review of the charter commission records of the State of South Carolina shows that fifteen mill companies have been granted charters during the current year. These companies propose building cotton mills, and their aggregate capital stock is \$2,950,000. Particulars as to the different companies have appeared in these columns during the year.

Messrs. Hinton & Werres of Petersburg, Va., are steadily proceeding with the installation of equipment for their silk-dyeing plant. A building located on the canal at the locks near the city has been secured, and the machinery is now being placed in position. The water of this canal is adapted for dyeing purposes. Several hundred hands will be employed.

The Millen (Ga.) Cotton Mills has been sold by the receiver, and the company will be reorganized to continue the plant in operation. The price paid is reported as \$90,000. This property was recently sold at \$50,000, but the courts refused to confirm a sale at that figure; hence the new sale at a higher figure. The plant has 5376 spindles for manufacturing yarns.

Efforts are being made for the establishment of a cotton factory at Lake Charles, La. The local investors will take half the stock in a \$50,000 or \$100,000 company which experienced cotton manufacturers will join in organizing. The taxes on such a plant would be exempted until 1910. The Board of Trade, H. B. Milligan, president, can give information concerning this proposition.

Messrs. R. F. Learned, George W. Koontz, Stephen Duncan, L. P. Conner and others have incorporated the Natchez Cotton Mills, with capital stock of \$100,000, for all kinds of cotton goods. The Natchez Cotton Mills Co. has heretofore been the title of this enterprise. It has a plant of \$22,500 ring spindles and 576 looms, manufacturing shirtings, sheeting, batting and drills, and was capitalized at \$225,000 formerly.

A proposition has been made for the establishment of a cotton factory capitalized at \$500,000 at Meridian, Miss. The projectors are outside financiers, and offer to furnish \$375,000 of the capital if local investors will furnish \$125,000, or

one-fourth of the amount to be invested. T. C. Carter, president of the Meridian Cotton Co., has interested himself in the proposition, and is endeavoring to have the terms accepted.

Three large cotton mills are projected to be established at towns on the Southern Railway and the Mobile & Ohio Railroad. One town is in Mississippi, and the local business men have subscribed \$65,000; another is in Georgia, and \$50,000 is available; another is in the cotton belt, and \$115,000 has been subscribed. M. V. Richards, land and industrial agent of the Southern Railway, office at Washington, D. C., is prepared to supply information concerning these contemplated enterprises to experienced manufacturers desirous of investing in the Southern cotton industry.

Mention was made at some length last week of the progress of work on the No. 2 plant of the Standard Cotton Mills of Cedartown, Ga. The company expects to have this plant completed by January 15, and A. F. Walker of Atlanta, Ga., offices in the Austell Building, is engineer in charge. The main structure is two stories high, 106x160 feet in size, and will be equipped with 2000 mule spindles and complementary machinery. Product will be mule-spun yarns, 20,000 pounds the weekly output, 40s to 80s, on cones and in skeins, woolen process. About seventy-five people will be employed. The expenditure involved in this addition is said to approximate \$100,000.

#### QUOTATIONS OF COTTON YARNS.

By Buckingham, Paulson & Co., New York, Philadelphia and Chicago, November 11.

No. 10s-1 and 12s-1 warps.....	14 61-
No. 14s-1 warps.....	14 61-
No. 16s-1 warps.....	15 61-
No. 20s-1 warps.....	15 61-
No. 22s-1 warps.....	15 61-16
No. 28s-1 warps.....	16 61-16
No. 36s-1 warps.....	16 61-16
No. 48s-1 warps.....	14 61-
No. 60s-1 warps.....	14 61-
No. 80s-1 warps.....	14 61-
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## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

## LUMBER MARKET REVIEWS.

## Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., November 12.

A fairly average volume of business has been reported in the local lumber market during the week under review. Receipts of lumber have been more liberal, and it is stated that there is a more decided demand for material. Vessels destined for this port have been detained by bad weather, and railroad shipments have been restricted by car shortage, so that stocks have not been well assorted. At the moment dealers are in the market, and for North Carolina pine prices have hardened considerably during the week. The demand for prompt shipment is difficult to satisfy, as all the mills in the North Carolina section are fully supplied with orders throughout this year, and some far into January and February of 1903. The cypress market is firm, with a good demand, and stocks rather scarce. Poplar is still in brisk demand, and orders to mills are difficult to fill, as manufacturers are well sold up and dry stock is scarce, while prices are now as steady and at as high a range as at any time during the present year. All hardwoods are firmer, and while there is no pressing demand, there is a fairly average business reported. The reports from local exports to the United Kingdom and Continent are somewhat more favorable, and it is expected that later on a better movement will be developed.

## Norfolk.

[From our own Correspondent.]  
Norfolk, Va., November 11.

The general conditions of trade in all sections of the lumber industry of this State were never of a more encouraging character than at present. The volume of business during October was very satisfactory to millmen, and the demand at the moment for North Carolina pine is far in excess of the immediate supply. The North Carolina Pine Association held a meeting here on the 5th inst., there being present members from all parts of Eastern Virginia and Carolina. The reports submitted by members present showed that business was very brisk, with indications that prices on certain grades will be advanced from fifty cents to one dollar per thousand feet. Among all woodworking plants there is considerable activity, and box factories are well supplied with orders. Great activity exists among the mills at Berkley and other points, and planing mills especially have all the orders they can handle. Among local yardmen there is a very active trade in progress, large quantities of lumber going into consumption for buildings and other purposes in the city and suburban points. Coastwise gales raged on Friday and Saturday last off the Virginia and Carolina coasts, and many vessels loaded with lumber have been detained in the Roads waiting for lighter weather. The demand for North Carolina pine from the United Kingdom and Continent is improving, and several schedules are being arranged for the current month.

## Savannah.

[From our own Correspondent.]  
Savannah, Ga., November 10.

The prospect for a substantial volume of business in every avenue of the lumber trade of this section never was more encouraging. The demand could not be more desirable than at present, and all grades of lumber are selling freely. A

number of large orders for switch ties are reported in the market, and among them one from the Baltimore & Ohio Railroad. The government is also said to be in the market for liberal supplies for work soon to be started. The list of values continues to show a firm tone generally, and prices realized are very satisfactory. Minimum easy-sized yard stock is quoted at \$14.50 to \$15, car sills \$16 to \$19, and ship stock \$23. Sawm ties are quoted \$12 per 1000 feet; hewn ties (7x9x8) 2, 40 cents each, and switch ties, \$12.50. During the past week some very heavy cargoes of lumber have left this port, and a number of vessels are expected to load during the next ten or fifteen days. Among the vessels clearing last week were the following: Schooner J. E. Du Bignon for Philadelphia with 457,233 feet, by John A. Calhoun; the James W. Paul, Jr., cleared for New York with a cargo of 1,575,951 feet of timber, and schooner Hilda for Philadelphia with 431,848 feet, both loaded by E. B. Hunting & Co. Clearances by steamer amounted to nearly 1,000,000 feet. The total shipments of lumber from this port from September 1 to date amount to 5,936,361 feet. The freight market continues firm, and rates are unchanged. Recent charters from this port and Brunswick to New York were closed at \$5.25 to \$5.50. The schooner R. T. Maull was taken this week to load ties at Brunswick for New York at 15 cents.

## Brunswick.

[From our own Correspondent.]  
Brunswick, Ga., November 10.

The outward movement of lumber since the first of the month to date was 6,494,684 superficial feet. Of this, the coastwise shipments amounted to 5,551,000 feet of lumber, 405,284 feet of railroad cross-ties (or 9211 pieces), and 114,400 feet of cypress shingles (or 572,000 pieces). The foreign shipments amounted to 197,000 feet of boards, deals and planks, 227,000 feet of joists and scantlings, cargoes going to Canary Islands and Liverpool. The coastwise steamship movement for the past week amounted to 900,527 superficial feet, of which 330,166 feet of pine lumber and 1518 pieces railroad cross-ties (amounting to 66,792 feet) went to New York, and 503,563 feet of lumber to Boston. Shipments of other special woods were 54,000 feet of satin walnut and 263,000 feet of cypress to New York by sail tonnage. At the nearby port of Darien the movement during the week consisted of only one cargo, a shipment of 10,860 railroad cross-ties, amounting to 434,400 superficial feet, going to Philadelphia. Up the river from Darien large rafts are awaiting higher waters, which will bring down timber which is now in great demand. Reports from Fernandina state that movement outward continues to show considerable progress. Reports from nearby and interior mills show the demand is somewhat greater than the supply for several weeks ahead, and that while prices, as a rule, are being held to, still in some grades there are discounts offered, and, on the other hand, extra large dimension sizes are bringing a premium. Stocks on hand at the various docks are larger than usual for the season, and taking this into consideration with the very large number of vessels now en route and charters recently made, clearly indicate that the outward movement for the month of November is going to be larger than that of October. Coastwise freights from the South Atlantic to Eastern ports show a stiffening, now being quoted from Brunswick to New York with lumber at \$5.50 to \$5.60, and railroad ties at 15 to 16 cents. Recent charters from this section are: From Brunswick, schooner Ed. P. Avery, 482 tons, to New York with lumber at \$5.25; schooner Helen W. Martin, 2020 tons,

with ties to New York at 15 cents; schooner Frances Leland, 284 tons, to New York with lumber at \$5.50; schooner Eva B. Douglass, 1039 tons, to Philadelphia with ties at 16 cents; bark Nineveh, 412 tons, Fernandina to New York with lumber at \$5.50; schooner Fred. A. Dav-enport, 634 tons, Satilla river to New York with lumber at \$5.62½. No foreign charters are reported so far, although the foreign movement is fairly strong, and inquiries are frequent.

## Mobile.

[From our own Correspondent.]  
Mobile, Ala., November 11.

The movement at this port in both timber and lumber shows every indication of being a very active one during the fall and winter months. Timber is strong at 17½ and 18 cents, and stocks are being quickly absorbed on arrival. Manufacturers seem determined to hold the price at 18 cents, and exporters are paying 17½ to 18 cents with reluctance. Shipments have recently been very heavy, and for the present month's loading a number of charters have been closed. Reports from the United Kingdom and Continent are similar to those of a week ago. The London Timber Trades Journal of the 1st inst., in reviewing the trade of that port, has the following: "The aspect of the wood market has undergone no material alteration during the week. The continental buyers appear to have rather more confidence in the future than exists amongst the merchants on this side, as several important whitewood contracts for next year have been already made to Germany, chiefly battens and boards. Although we do not consider that transactions of this kind will have any influence on the redwood stocks, they seem to point towards a further hardening of whitewood prices of the choicer makes. The values of red, however, are practically dependent on the English market, apart from local influences, such as the curtailment in the production, which, although not fully realized here, has been the primary cause of the inflated views shippers abroad now entertain of the requirements of this country. As far as we can learn, no forward business for next year has been done." The demand for prime lumber continues, and the outward movement increasing. Stocks are very light, and are quickly absorbed. The millmen here and at adjacent points are all of the opinion that the demand this season will be far in excess of the supply. There is some demand from Cuba, and considerable inquiry from River Plate. The mills at Pearlington, Miss., have started up, and the concern, the Poitevent Favre Lumber Co., at that point, it is stated, has orders for 15,000,000 feet of lumber. The mills at Pascagoula and all along the Gulf & Ship Island Railroad in Mississippi have all the business they can handle. The following shipments were reported on Saturday: British steamship Bixgrove for the Tyne via Rotterdam, Holland, with 63,376 cubic feet of sawn timber, 13,761 cubic feet of hewn timber, 1637 cubic feet of hewn oak and 910,000 superficial feet of lumber from W. K. Syson Lumber Co. The British steamship Falcon cleared with 1,655,868 superficial feet of sawn timber for Hamburg, Germany.

## Nashville.

[From our own Correspondent.]  
Nashville, Tenn., November 11.

Lumbermen in this section are very much encouraged over the tendency of the local lumber market, especially for hardwoods. For all classes of hardwoods there is a steady demand, and the prospect is that business throughout the winter months will be of unusual volume. The inquiry for all kinds of oak is most pro-

nounced, and prices have about reached the limit. Further advances are not likely, as dealers are liable to withdraw from the market. Quartered white oak is very scarce, especially in dry stock, in which are boards, both firsts and seconds, and common. There is a brisk demand for poplar, and while there has been no recent advance, association figures are generally realized in all cases. The development of hardwood territory throughout Middle and West Tennessee has been during the present year characterized by unusual enterprise. Thousands of acres abounding in all the native woods have been taken up; saw-mill plants have been erected, and the market is now showing an unusual volume of business in every department. In the Memphis section the market is in good shape, and in all commercial woods there is a good demand present. Stocks of various hardwoods are very much short of the demand existing, and dry stocks are scarce. Plain white oak, as well as quartered oak, have advanced, and red quartered oak is a strong factor on the market. Manufacturers still complain of shortage in cars, which restricts business considerably. Altogether the situation is a strong one, and prices are likely to remain firm during the fall and winter months.

## Lumber Notes.

The Gulf Coast Lumber Co. at Lyman, Miss., has begun the construction of a saw-mill to have a capacity of 100,000 feet a day.

The large planing mill of W. A. Baker & Co. at Dublin, Ga., commenced work last week, and the extensive plant is now complete.

A new furniture company was organized last week at Macon, Ga., with a capital stock of \$3000, with privilege of increasing to \$25,000.

The plant of the Elk Lumber Co. at Blue Creek, West Virginia, was destroyed by fire on the 10th inst. The loss is estimated at \$8000, partially insured.

The L. & N. Dantzler Lumber Co. of Gulfport, Miss., has loaded the Portuguese ship Dora with 800,000 feet of lumber for transportation to South Africa.

The Huntsville Hoop & Heading Co., recently organized at Huntsville, Ala., began operating at its plant in North Huntsville on Monday last. The plant employs about thirty men.

The Vestal Lumber Co., one of the largest lumber plants at Harriman, Tenn., is being moved to Knoxville, and will be located in South Knoxville on the Knoxville & Augusta Railroad.

Messrs. J. H. Bennet and Charles Manning of Clio, S. C., have organized the Carolinas Pine & Hardwood Co., with capital stock of \$3000. They propose to deal in timber, also buy and sell pine and hardwood lumber of all kinds.

Messrs. Ernest E. Price, John L. Alcock, William H. West, J. McD. Price and Gustav A. Farber have incorporated the Hardwood Exporters' Association at Baltimore, Md. These incorporators are engaged in the export trade. Capital stock is placed at \$5000.

Shipments of lumber from Orange, Texas, by rail and water for the month of October were as follows: Litcher & Moore Lumber Co., 2,371,776 feet; Kirby Lumber Co., 2,573,938 feet; Orange Lumber Co., 2,902,576 feet, making a total for the month of 7,848,290 feet.

The monthly bulletin of the port of Fernandina, Fla., for October reports the shipments of wood products as follows: Lumber 8,551,602 feet, of which 6,853,477 feet were coastwise and 1,698,125 feet foreign. Shipments of cross-ties were 45,034, all coastwise, and shingles 180,000.

The largest lumber raft ever floated down the Mississippi river recently reached St. Louis. It contained 14,000,000 feet of lumber, measuring 1715 feet long and 237 feet wide. It had a depth of three feet, and the lumber was worth \$210,000. The raft crew numbered twenty-three men.

The W. A. Gill Manufacturing Co., of Charleston, W. Va., has been chartered, with a capital of \$25,000. The company will manufacture carvings, interior decorations in wood and all furniture and products of wood. The incorporators are W. A. Gill, W. O. Daum, Frank Cox, J. F. Clark and Leo Loeb.

A party of British capitalists visited Beaumont, Texas, last week. Mr. W. C. Gance of Mobile, Ala., representing the Sutherland-Innes Co., Limited, dealer in pitch-pine timber and lumber, was with the party, who are inspecting the timber resources of the State and the facilities for shipment of timber at Sabine Pass.

Shipments of lumber last week from Charleston, S. C., were as follows: Schooner Van Name & King, 586,000 feet; schooner Georgetta Lawrence, 250,000 feet; schooner J. H. Parker, 375,000 feet; schooner Bessie Whiting, 351,700 feet; steamer Algonquin, 56,123 feet, all for New York. The steamship S. T. Morgan cleared with 1,400,000 feet of lumber for Philadelphia.

Contracts have been made for the erection and equipment of a planing mill and woodworking plant for the Allen & Curry Manufacturing Co., Limited, at Shreveport, La. The contract price is \$12,982, and the machinery will cost \$20,000 or more. This plant will make sash, doors and general house furnishings, and will plane lumber, employing from 100 to 150 men. The plant takes the place of one that was burned last spring.

Bridgers & McKeithan Lumber Co., of Lumber, S. C., has let all the contracts for rebuilding its planing mill and dry-lumber sheds, destroyed by fire last week at a loss of \$10,000. The new building will be 100x200 feet in size, and contain five planers. Construction work is now in progress, J. L. Wiggins being the contractor. All the needed machinery has been purchased, and an output of 50,000 feet daily will soon be produced.

Announcement is made that the Gresham Planing Mill Co. has begun the construction of its new planing mill at Griffin, Ga. The mill building will be a two-story structure, 54x215 feet in size, and a complete modern equipment will be installed, including a line of general woodworking machinery. All the machinery will be wanted, and the company is now in the market for the same. The company will light its plant by electricity.

C. E. Riddle of Fernandina, Fla., proposes the establishment of a lumber mill of 25,000 feet capacity daily, and will soon be in the market for the entire equipment. A complete modern sawing plant will be selected. Mr. Riddle is well known as agent for the Bradley-Watkins Co., dealer in and manufacturer of lumber, railway ties, timber and piling, etc., this company having its head office at the Lumber Exchange, Minneapolis, Minn.

Messrs. Minchener and Henderson, who have been building a hoop and heading plant at Huntsville, Ala., have organized the Huntsville Hoop & Heading Co. to operate the factory. Joseph Minchener has been elected president; William E. Henderson, vice-president, and Ed H. Nixon, secretary-general manager. Capital stock is \$12,000. A contract has been closed for the first six months' product of the plant, one-half of it to be shipped

to Liverpool, England. Elm wood only will be used.

Mr. H. H. Boyer, representing the German-American Lumber Co., at Pensacola, has been inspecting the company's property at Millville, near St. Andrews, where a new saw-mill plant is being erected by the company. The machinery for the new mill is nearly all on the ground, and the installation of the plant is well under way, with a prospect of completion by the 1st of January. The two plants of the company will have a combined capacity of over 100,000 feet of lumber per day.

A meeting of the lumber manufacturers of the country has been called to take place at St. Louis, Mo., December 9, for the purpose of forming a national association. It is proposed to organize an association that shall look after all matters of general interest to lumbermen. There will be no intention of controlling prices, but all interests involved will be kept in touch with each other, so that members shall be kept informed of the general condition of supply, demand and prices. Representatives from the Georgia Saw-Mill Association and other bodies of Southern lumbermen are expected to be present at the meeting.

A charter was granted last week to the Consolidated Naval Stores Co., with the principal office in Jacksonville, Fla., and capital stock of \$3,000,000. The incorporators of the company are B. F. Bullard, W. C. Powell and John R. Young of Savannah, Ga.; W. F. Coachman, H. A. McEachern and D. H. McMillan of Jacksonville, Fla.; H. L. Covington and J. R. Saunders of Pensacola, Fla., and J. A. Crawford of Tampa, Fla. The following are the officers of the company: W. C. Powell, president; W. F. Coachman, H. A. McEachern, H. L. Covington and B. F. Bullard, vice-presidents, and J. C. Little, secretary and treasurer.

#### For Woodworking Plants.

The Business Men's Association of Lawrenceville, Va., is sending broadcast statements calling attention to that community as a site for woodworking establishments. Lawrenceville has a population of 1400, and is surrounded by tracts of oak, hickory, hemlock, birch, pine, walnut, ash, gum and other woods. Fuel is abundant and cheap and rents are low. Hugh C. Risdon is secretary of the Business Men's Association.

At the thirteenth annual meeting of the Savannah Cotton Exchange last week, President J. P. Williams presented an extensive and comprehensive review of the trade and industrial conditions of the city. Among the movements started during the year mentioned by him were the organization of a trust company with ample capital, the chartering of a corporation to build a dry-dock capable of accommodating the largest vessels, and the inaugural steps for the establishment of an extensive coaling station. He advocated the establishment of a bureau of publicity and protection acting in sympathy with the Cotton Exchange and the Board of Trade to encourage the migration of capital to the city.

The Gulf Transport Line, operating between Galveston and Liverpool, Bremen and Havre, will add to its service in December a vessel having a capacity of 30,000 bales which has just been launched at Belfast.

The stove-manufacturing business at Nashville has an annual output of 60,000 stoves, which are sold in 5000 Southern communities. The capital invested is \$500,000, and the output is valued at \$1,250,000.

## PHOSPHATES.

### Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., November 12.

The local phosphate market continues quiet, with no increase in the volume of business. The offerings of rock are moderate, but fertilizer men are not purchasing freely. During the past week the following phosphate charters were closed, denoting the movement from the Florida ports: Schooner Harry T. Hayward, 1020 tons, from Port Tampa to Baltimore on private terms; schooner Adelaide Barbour, 1171 tons, from Port Tampa to Norfolk on private terms; British ship Aristomene, 1662 tons, from Port Tampa to Yokohama on private terms, and schooner George A. McFadden, 936 tons, from Port Tampa to Baltimore on private terms. A fairly active movement is present at all mining sections of the Southern phosphate belt, and the output shows a material increase for October and up to date of present month. In Florida shipments from the ports have been unusually heavy for the past sixty days. Last week at Port Tampa over 14,000 tons of rock left the port, and at Fernandina and Savannah the shipments for the past ten months have been very satisfactory. Both hard rock and river pebble continue very steady as to value, and for the latter there is a good foreign inquiry. The movement among Charleston miners is of good volume, and for South Carolina rock the market is steady, with a better domestic inquiry. In the Mt. Pleasant district in Tennessee phosphate mining has been very active during October, and so far this month the various companies engaged are taking advantage of the weather and housing as much rock as possible for future delivery during the winter. Both domestic and foreign rock are very steady as to value, and holders are generally firm in their views. Foreign shipments for late November and early December are expected to be heavier than usual.

### Fertilizer Ingredients.

The ammoniate market is very quiet, few sales being reported. The tone of the market, however, is strong, and sellers show no disposition to cut prices in any way. Western packers hold stock firm.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)...	\$2 97 1/2 @ 3 00
Nitrate of soda, spot Balto...	1 90 @ 2 00
Blood .....	2 57 1/2 @ 2 00
Azotine (beef).....	2 55 @ 2 57 1/2
Azotine (pork).....	2 55 @ 2 57 1/2
Tankage (concentrated).....	2 37 1/2 @ 2 40
Tankage (9 and 20).....	2 52 1/2 @ 10 1/2 55 & 10
Tankage (7 and 30).....	21 00 @ 21 50
Fish (dry).....	27 50 @ 30 00

### Phosphate and Fertilizer Notes.

The schooner Fannie Reiche cleared last week from Charleston, S. C., with 639 tons of phosphate rock.

The Bowker Chemical Co. of Jersey City, N. J., has been chartered, with a capital stock of \$50,000. The incorporators are Frank B. Pierce, Charles A. Voetsch and Edward P. Meeker.

Messrs. J. M. Lang & Co. report the shipments of high-grade Florida phosphate rock from the port of Savannah for the month of October at 27,704 tons; previously reported, 127,110 tons, making a grand total for the ten months ending October 31 of 154,814 tons.

The Hot Springs Earth Co. of Hot Springs, Ark., has been incorporated, with a capital stock of \$100,000, all paid in. The object of the company is to mine, purchase and sell fuller's earth and other materials to be used in making toilet and medicinal compounds. The officers of the company are H. B. Hilgeman, president; J. F. Howard, vice-president; E. H. Gregory, secretary.

It is stated that large beds of kaolin have been discovered in the counties in the eastern portion of the State of Texas. Experts from Indianapolis have recently been in Fort Worth, Texas, with a view to utilizing kaolin for a pottery manufactory in that city. The specimens discovered are said to be well adapted for fine porcelain.

It is stated that the Maury Phosphate Co., recently chartered at Columbia, Tenn., and which purchased the Morse tract of land near the plant of the American Phosphate Co., expects to begin mining operations at an early date. The Messrs. Ruhm of Mount Pleasant, Tenn., and Messrs. Witthorne of Columbia are the principal stockholders.

The shipments of phosphate rock from the port of Fernandina, Fla., for the month of October amounted to 23,500 tons; previously reported, 148,295 tons, making a grand total for ten months ending October 31 of 171,795 tons. Four steamers to load phosphate rock were chartered for early November, besides three now in port and loading.

The following vessels cleared last week from Port Tampa, Fla., with full cargoes of phosphate: Steamer Nordkyn for Stettin with 3300 tons, steamer Nordholen for Dantzig with 3000 tons, steamer Dorothy for Baltimore with 3100 tons, from the Palmetto Phosphate Co.; the American schooner L. Herbert Taft for Baltimore with 2250 tons, from Joseph Hull, and the French bark Kerr Joseph for Nantes, France, with 1027 tons, from the same shipper.

### Southern Car & Foundry Co.

Mr. John M. Hansen, president of the Standard Steel Car Co., is quoted as follows regarding the purchase of the capital stock of the Southern Car & Foundry Co., which has plants in Tennessee and Alabama:

"I want it understood that the Standard Steel Car Co., as a corporation, is not interested in this transaction. Mr. Brady, Mr. Fraser and some others, a few of whom are also stockholders in the Standard Company, and myself have bought the entire capital stock of the Southern Car & Foundry Co.

"We consider that these properties are especially valuable, not only because of the fact that their location enables them to produce the material necessary for the manufacture of cars from the raw material practically at their doors, but because their location is such that they have unexcelled railroad connections.

"From these new plants we can deliver direct to the Southern Railroad, the Louisville & Nashville, the Plant System, the Gould System, Seaboard Air Line, Chesapeake & Ohio, Norfolk & Western, Central of Georgia, the Southern Pacific and several others.

"The car building necessary to keep up the equipment of the railroads of the South and Southwest can be handled to the best advantage from the plants we have purchased, and we believe the business secured in that territory will enable us to operate all the works to their present full capacity without any trouble, and with the increased output resultant from contemplated improvements we will soon be able to furnish quite a number of wooden cars for the Northern market. Heretofore only wooden cars have been produced, but we will equip to make both wooden and steel cars.

"The output of the blast furnace will be taken by the different foundries owned by us, and the castings produced in these foundries, we figure, will all be used in the different car-building enterprises owned by us."



## KANSAS CITY, MEXICO & ORIENT RAILWAY.

Arthur E. Stilwell's Project Connecting the Southwest and Mexico's Pacific Coast.

[Special Correspondence Manufacturers' Record.]

Kansas City, Mo., November 8.

Hardly of less interest than the daring conception of the new trunk line from Kansas City to the Pacific is the truly wonderful progress which has been made toward its construction by the promoters of the Kansas City, Mexico & Orient Railway. Four years ago it had not even been dreamed of, and yet today all of it has been surveyed, practically 40 per cent. of the line has been graded, portions of the road both in Mexico and this country are in operation, and a fleet of steamships is being run from the western terminus of the road at Port Stilwell, in the Bay of Topolobampo, and there is every assurance that the entire project will be pushed

a beginning than will be consumed by Mr. Stilwell in the complete construction of his entire line.

The name of Stilwell was already a pseudonym for success in railroading before his project of the Orient road was proclaimed, for it was he who in the early nineties inspired the Port Arthur route and raised the money for that air line between Kansas City and the Gulf of Mexico at a time when, with almost no exception, new enterprises commanded no attention whatever from financiers of either this country or of Europe. Having disposed of his interests in the road now known as the Kansas City Southern, and being a man of ceaseless activities and

both here and abroad, began to come with the presentation of the plan, and with a little delay as the magnitude of the undertaking necessitated the work of carrying out the great enterprise has gone right on.

The road will be shorter by 500 miles to the Pacific ocean than by way of the California ports, and in connection with the line of Oriental and South American steamers which it is proposed to operate, it will necessarily prove a most important factor in the development by this country, and particularly the Middle West, of the Oriental and South American trade. In addition, it will prove of the greatest importance as a domestic as well as international carrier, and in Mexico will open up a vast section of country immensely rich in a great variety of natural resources, but now wholly without railroads for a stretch of more than 1000 miles north and south along the coast. Since Diaz became President of Mexico there has been a wonderful extension of rail-

road development, while in Mexico there is the added charm of strangeness, of a country but partially known, and of a mineral section hardly explored yet, but which is so full of precious ores that some of the mines have been producers since the days of Cortez, and some of the ores run hundreds of dollars to the ton. Near the line of the road are the bonanza mines of the late "Boss" Shepard, believed to be among the richest in the world, while all through the Sierra Madre mountains there are working mines of gold, silver, copper, lead and iron of great richness and inexhaustible supply. The Orient will be the first road to cross the Sierra Madre mountains, and although they would seem to present most difficult feats of engineering, it is declared that a very satisfactory survey has been accomplished, by which the maximum grade of the road will be 2½ per cent., which is less than that of the Pacific railroads of the United States. Because of the lack of transportation,



through to completion without loss of time.

It almost savors of the magical, this latest achievement of Arthur E. Stilwell, to whom is due the credit of putting on its feet this international trunk line of 1000 miles in length; indeed, it is believed to be without precedent in railroad history for an undertaking of equal importance to be brought to such a state of perfection in anything like three or four times the length of time that has elapsed since the project took form in the mind of Mr. Stilwell. More remarkable still, the greater part of the work which has been done has been accomplished in the past two years. For purposes of comparison, it may be recalled that the first railroad from the Missouri river to the Pacific was talked about for nearly twenty years before it was constructed, and, despite the fact that the resources of the government were behind the enterprise, it took more time to make

well-nigh limitless energies, he naturally turned to other and greater enterprises. The mighty grasp of this vigorous man of affairs, his keenness of vision, quickness of perception and rapidity of action are illustrated in the story of the inception of the Kansas City, Mexico & Orient road. One day, four years ago, Mr. Stilwell read the report of the Nicaraguan commission, in which it was declared the construction of the proposed isthmian canal would be of vast importance to the commerce of the nation, but the report contained a comment to the effect that there would be found even as great if not greater justification for the construction of a railroad from some point in the Middle West to the nearest point on the Pacific coast. The idea at once took root in Mr. Stilwell's mind. The very next day the road had been planned by him, practically as it appears today, and immediately he placed a corps of surveyors in the field. Capital,

roads, there having been but 500 miles in the republic at that time, whereas there are now more than 10,000 miles, and more railroad construction is going on there now than ever before. But the great country of the west coast is still barren of roads, almost without exception, and yet it is so rich in minerals that Humboldt called the Sierra Madre mountains the "treasure-house of the world." Mineral wealth is but a portion of the riches of this west-coast country, the lands west of the mountain range being among the richest of all Mexico, especially adapted to the raising of sugar-cane, fruits, cotton, corn and other crops.

There are 600 miles of the Orient road in Mexico, to 1000 in the "States." In Mexico the richness of the country's resources presents a most alluring prospect to the investor. From Kansas City to Port Stilwell the road runs through a country fertile and certain of a long-con-

tinued development, while in Mexico there is the added charm of strangeness, of a country but partially known, and of a mineral section hardly explored yet, but which is so full of precious ores that some of the mines have been producers since the days of Cortez, and some of the ores run hundreds of dollars to the ton. Near the line of the road are the bonanza mines of the late "Boss" Shepard, believed to be among the richest in the world, while all through the Sierra Madre mountains there are working mines of gold, silver, copper, lead and iron of great richness and inexhaustible supply. The Orient will be the first road to cross the Sierra Madre mountains, and although they would seem to present most difficult feats of engineering, it is declared that a very satisfactory survey has been accomplished, by which the maximum grade of the road will be 2½ per cent., which is less than that of the Pacific railroads of the United States. Because of the lack of transportation,

**The Kansas City  
Mexico & Orient Ry.**

cities, New York, Pittsburg, St. Louis, Chicago, Milwaukee and other cities, and there are as well a number of large com-

entirely new field for Texas development. The road taps the fertile Pecos, where irrigation is transforming a whole region

ranches have long attracted investment at home and abroad; there have been extensive and successful attempts made in

work and a share of the profits which the extensive development of this great State, now so well started, will involve.



FIRST CONSTRUCTION TRAIN ON THE K. C., M. & O. FROM CHIHUAHUA TO PRESIDIO.

panies owned and controlled in Europe. Some of the largest mining interests of the country, among them the Guggenheims, are taking hold of these Mexican properties; but, important as has been the mineral development of the section, it is believed that the development has scarcely more than begun. There are vast bodies of ore of a grade which would yield handsome profits with railroad transportation, but which are not available now. And with transportation facilities there will be a great stimulus given to the location and opening up of other new properties, while hundreds of small mines that have little value now can be operated with a profit.

The Orient road crosses Chihuahua and Sinaloa almost at their central parts, and throws the richest sections of these States open to development. East of the Sierra Madre mountains are vast areas of grazing lands, and Chihuahua is already called the Texas of Mexico as a cattle-producing country. Besides its mineral riches, the mountain region is well timbered, mostly with pine, interspersed with spruce and cedar. West of this is the coast country, commonly called the rich west coast, which, though a wonderfully fertile region, is in great measure undeveloped through lack of railroad communication. Already several projects are on foot for railroads north and south along the west coast, to be tributaries to the Orient. The lands here, which are traversed by numerous streams, are well adapted to irrigation and for the growth of semi-tropical fruits. Oranges superior to those of the States are raised here, and they are ready for the market two months earlier. Sugar-cane is here an exceedingly profitable crop, the fields often producing for fifteen years without replanting.

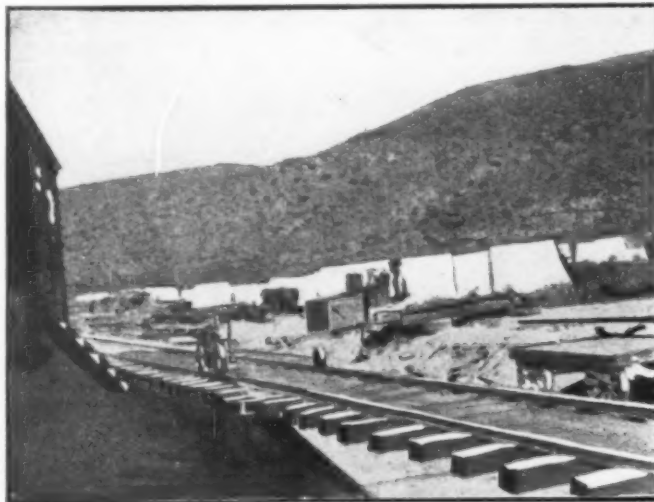
On the coast below Port Stilwell the valuable woods of the tropics are found, such as ebony, chino and lignum vitae.

On the coast the anthracite coal fields of Sonora are within easy reach, and on the east, where the road crosses the Rio Grande, the coal fields of Coahuila are nearby.

In the States the route of the Orient is through a territory rich in varied resources, and outside of the road's importance as a new international line, one which brings the whole Pacific world into closer touch with Kansas City, Chicago and the entire Middle West, it will prove a valuable developer of local conditions. Down in Southwest Texas are wonderful quicksilver deposits, now far off the lines of railroad transportation. Here is one instance where the road will open up an

into a garden spot. A large area of Texas will be given most important railroad com-

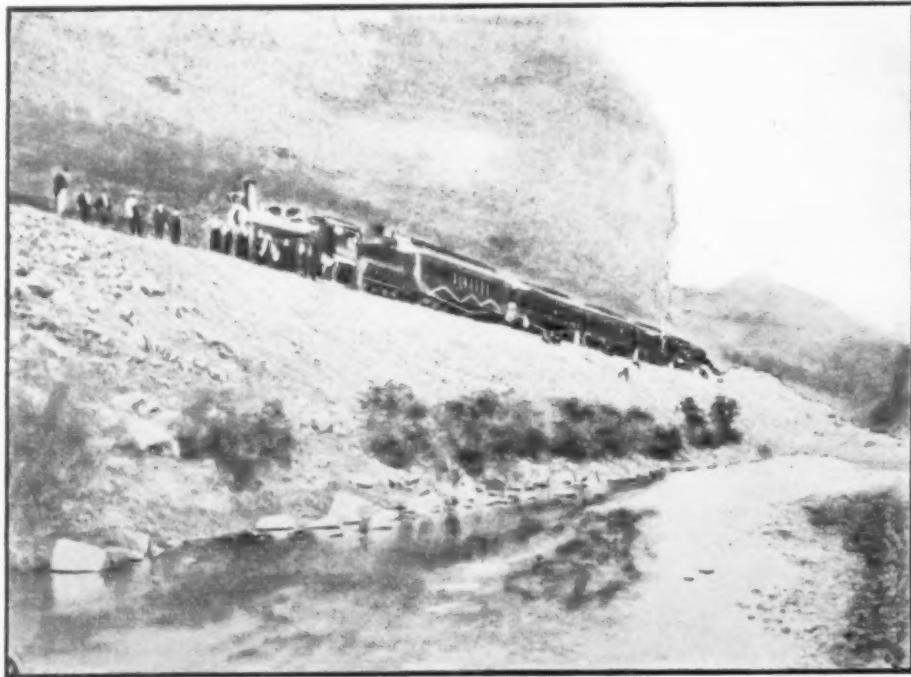
recent years to raise various fruits on a commercial scale. Texas will get a large



VIEW OF TRACK CAMP, NEAR ALDAMA.

munication with the outside world, where now the mule train and the wagon still

share of benefit from the efforts of the Southwestern railroads to attract the tide



ON THE CHIHUAHUA & PACIFIC AT RIO SANTA ISABEL, DIVISION OF K. C., M. & O., NEAR MINACA, CHIHUAHUA.

survive. The oil fields have drawn world-wide attention to Texas; her big cattle

of immigration to the Southwest, and the Orient will come in for a share of the

tance of 125 miles, has been leased and made an integral part of the Orient, and

The Orient crosses the entire Territory of Oklahoma, whose sudden and substantial development is the wonder of the times, and it provides a large section of this increasingly important Territory with much-needed transportation facilities. Through Kansas the very cream of the State is reached by the road, including the great wheat belt of the central south, the important coal fields of Osage county and the important cities of Wichita, Emporia and others, till Kansas City, Kan., is reached. It will thus be seen that the Orient will have an unusual variety of interests along her line, and is bound to become an important carrier of corn, wheat, cotton, fruits, cattle, minerals, timber and sugar, a list hardly to be paralleled by that of any other road on the map, and that it will prove a profitable line to its stockholders, as well as to the country it opens, it is evident at the start.

The problem of terminals has been successfully solved at both ends of the line. At Kansas City \$2,000,000 represents the investment to be made. There is to be an outer belt line built, intersecting the present Suburban and Kansas City belt roads, and giving connections with the numerous Kansas City railroads and an entrance to the union depot. The plans contemplate a bridge over the Missouri river and extensive yards on the Clay county side of the river, opposite Kansas City, Mo.

At Port Stilwell there is a deep-water harbor, declared to be the finest on the coast south of San Diego, Cal. Topolobampo bay, fifteen miles long, is a land-locked harbor, affording inside anchorage, whereas most of the harbors on the coast are merely open roadsteads. Land has been purchased for a townsite here, and an important seaport will be built up.

Construction work on the line is proceeding without delay, and at numerous points, both in this country and in Mexico. A section of the road is completed and in operation between Harper, Kan., and Fairview, Okla. Tracklaying is proceeding south of Fairview, and grading is under way as far south as Sweetwater, Texas, covering a distance of 416 miles. The Chihuahua & Pacific road, completed some years ago and in operation between Chihuahua and Minaca, Mexico, a dis-



grading and tracklaying are proceeding both east and west from the present ends of the line. From Port Stilwell east the road is graded for seventy-five miles, and tracklaying has begun. With Mexican bonds, given as a subsidy to the road, all the rails for the Mexican line were bought in England, and the rails are being shipped as rapidly as possible. They are 65 and 75-pound rails, and, as with the bridge and culvert work being put in, indicate

and those backing the Orient see a future of great and growing prosperity when the resources of the country are even partially utilized. Instead of the narrow view obtaining in some quarters, they furthermore believe the construction of the isthmian canal will help the railroads, that it will give a great stimulus to that part of the world, and that it will make business for the railroads.

The promoters of the Orient believe in

products, and that they will be pleased to co-operate with American manufacturers in building up a trade from the United States.

#### Southern Supply and Machinery.

The Southern Supply and Machinery Dealers' Association is in session this week at Memphis, Tenn., the program including addresses of welcome by President C. B. Jenkins of the Cameron &

Southern Brass & Iron Co., Knoxville, Tenn.; L. J. Lomasney of the Peerless Rubber Manufacturing Co., New York city; John J. Voorhees of the Voorhees Rubber Manufacturing Co. of Jersey City, N. J.; Samuel Disston of Henry Disston & Sons, Philadelphia; S. Milnor Price of the Henry Walke Company, Norfolk, Va., and others. The association has members in ten of the Southern States.



BRIDGE OVER CHIHUAHUA RIVER, NEAR ALDAMA, UNDER CONSTRUCTION.



VIEW ON KILOMETER No. 21, NEAR ALDAMA.

the thoroughly substantial manner in which the road is being constructed. The company has a steamship line now operating between Port Stilwell and Guaymas, the terminus of the Sonora branch of the Southern Pacific Railroad. Later a steamship service will be established between South American and Oriental ports. A contract has been let for the equipment of the road with passenger and freight cars, a 4½ per cent. car trust having been sold at par, running ten years. Other recent contracts of interest and significance are with the Western Union Telegraph Co. to build and operate a line on the road for twenty-five years, and with the American Express Co., giving to the express business of the road for twenty-five years.

As showing how much importance is attached to this line by those near at home the subsidies voted by cities and counties of Kansas are of interest: Butler county, \$4,500; Chase county, \$60,000; Harper county, \$42,000; Sedgwick county, \$80,000; Wichita (Sedgwick county), \$30,000; Lyon county, \$50,000; Emporia (Lyon county), \$20,000. Other cities and counties have under consideration the matter of granting aid, and favorable action is anticipated.

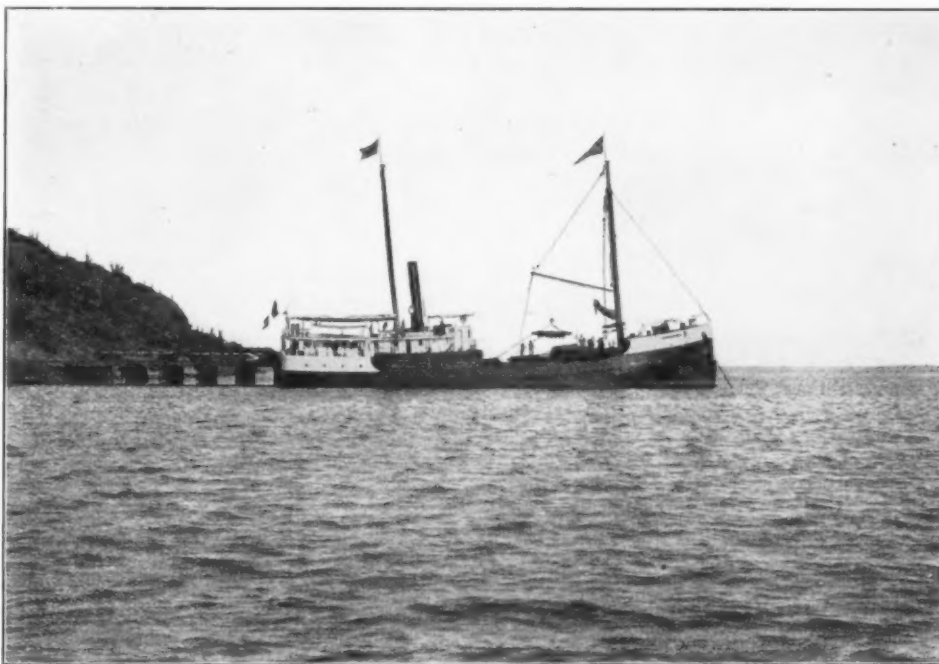
Representatives of the London finance committee and other European investors lately visited Mexico, going over a considerable portion of the line and visiting the capital city, where they conferred with government officials. They returned thoroughly satisfied with the result of their investigations, and declared themselves as more than pleased with what they had seen and heard.

The industrial and commercial growth of Mexico is attracting world-wide attention, and everything is being done by the government that can be done to foster all legitimate enterprises and encourage investment and immigration from the United States and other countries. Property is as safe in Mexico as in this country. Industrial development is progressing with remarkable rapidity in cotton factories, furniture, glass, iron and many other lines. Cotton and cereal farming, fruit-growing, stock-raising—these, from reliable and large profits resulting, likewise certain of vast development.

the greatness of their project and in the greatness of its future, and those who investigate come to be thoroughly in accord with their view. Witness the recent accession of Edward Dickinson to be general manager of the Kansas City, Mexico & Orient. Here is a railroad executive of the first class, a man who for thirty years had been connected with the Union Pacific system, and for nine years was its general manager. When a man of such prominence, wide experience, established

Barkley Co., Charleston, S. C.; by Mayor J. J. Williams of Memphis and by Geo. W. Denny of the Georgia Supply Co. of Savannah, Ga.; a response by W. A. Mix of the Dodge Pulley Co., Mishawaka, Ind., and discussions on the following topics: "How Can Manufacturers Most Economically Distribute Their Product?" "Reciprocity." "Advantages and Disadvantages of Quantity Prices," "Outlook for the Approaching Year—Will Present Range of Prices Probably Pre-

At the eleventh annual convention of the Southern Hardware Jobbers' Association a prize of \$50 was offered for the best essay of 1000 words or less written by a traveling salesman of some Southern hardware jobbing house on trade mismanagement and its consequences. Judgment of the essay was left to the vote of the entire membership of the association. Mr. C. B. Carter, secretary-treasurer of the association, announces that the essay of Mr. W. A. Ray of Teague & Sons,



AT PORT STILWELL.

capacity and high class resigns from the road to which he has been attached for thirty years and takes up with a new road a tribute of the greatest significance is thereby publicly paid to the stability and importance of that road.

ALBERT PHENIX.

Y. Davila Flores, Son & Co. of Monterrey, Mexico, write to the Manufacturers' Record that there is a growing demand in the republic for all kinds of American

vail?" "The Effects of Prices on Consumption." "What Practical Measures Can We Adopt to Make the Conduct of Our Business More Profitable, and How Is the Best Way to Do It?" "Free Delivery." "Case and Cartage." "Unfair Business Methods" and "Importance of Local Associations," participated in by N. A. Gladding of E. C. Atkins & Co., Indianapolis, Ind.; George R. Lombard of the Lombard Iron Works & Supply Co., Augusta, Ga.; Peter E. Blow of the

Montgomery, Ala., has been awarded the \$50 prize, while a second prize of \$25 has been awarded to Mr. Charles H. Magill of the Magill Hardware Co., Chattanooga, Tenn., and a third prize of \$10 to Mr. Norman Sharp of the Beck & Gregg Hardware Co., Atlanta, Ga. The essays entered in the contest have been published in handy pamphlet form, and it is believed will be productive of much good for the trade.

## MECHANICAL.

### Little Giant Engine.

The Little Giant engine embodies in its construction a maximum of power in a

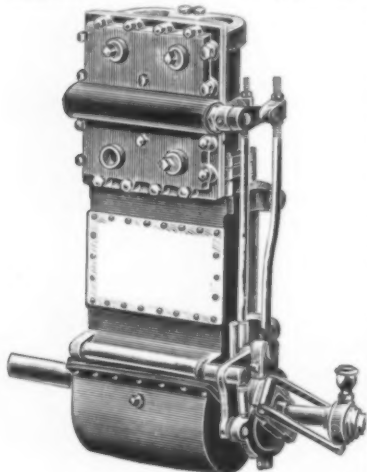


FIG. 1—LITTLE GIANT ENGINE.

minimum of space; it is safe, of high efficiency, inexpensive to install and to operate; added to which it is extremely simple in construction, and has no delicate parts to get out of order.

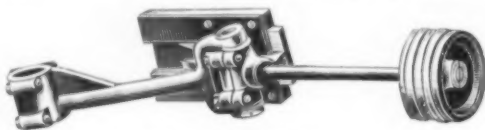


FIG. 2 THE PISTON.

This engine is made in two sizes. The smaller, five horse-power, is eighteen inches high, six inches wide and five and one-half inches thick; it weighs forty-seven pounds.



FIG. 3—THE BOILER.

The larger, ten horse-power, is twenty-two inches high, seven inches wide, seven inches thick, and weighs seventy pounds. These engines are especially designed



FIG. 4—THE BURNER.

for the small horse-power required by vehicles, dynamos, boats, plants of limited capacity and other purposes for which a safe engine occupying small space and

costing little is required. The steam chest and cylinder-head joints are ground, doing away with the necessity of packing, and the valves are balanced, reducing friction.

The reversing arrangement has but one eccentric; it is simple and durable.

The piston, Fig. 2, is supplied with a patent cage to make it steam-tight, and permanently so. The bearings, of phosphor bronze, are enclosed in dustproof casings, the crankshaft running in oil. Crossheads, crank bearings and piston are self-lubricating.

The boiler, which is neither a tubular nor a water-tube, is of new design. It is said to be a wonderfully quick steam generator, having very few joints, and of extremely light weight.

It is, nevertheless, very strong, and has successfully withstood very severe tests. For the smaller engine the boiler is only fourteen inches high and sixteen inches in diameter. It is especially designed for high pressure, and its construction makes it most economical of fuel.

Coal oil or gasoline is used with the burner, Fig. 4; this will not clog, is made of malleable iron in two pieces, and is very durable.

These outfits are demonstrated successes. There is a 26-foot launch in the harbor of Baltimore making twelve miles an hour with the smaller of these outfits.

This outfit complete costs but \$150, and the larger outfit sells for only \$225. They have been found very satisfactory for the purpose for which designed, and, owing to their low cost and durability, are becoming popular.

The Shaffer Boiler & Engine Manufacturing Co., 227½ N. Calvert street, Baltimore, manufactures these equipments.

### The American Card Index System.

The American card index system is a system of indexing, classifying, arranging and recording, which may be used for keeping almost every kind of a record. A complete system may consist of a single card drawer or a series of card drawers arranged in cabinet or desk form.

The primary division or unit of the American card index is a drawer specially adapted and constructed so as to contain a series of cards or records, uniform in size, which are arranged or classified in the card drawers by a system of index or guide cards having portions of their upper edges projecting alternately above the body of both record and guide cards, and on which projections is printed matter indicating the classification or index heading under which the cards of record are filed.

The indexed guide cards may be printed

with letters or subdivisions of the alphabet, numerals, days of the week, months, names of persons, States and towns or any special classification desired.

The special features of the card index system is that its classification or system of indexing may be changed and the record expanded or contracted without re-



FIG. 1.

writing. It is specially valuable for large lists of customers, which are subject to many changes, where new names are being added and old names removed. The

all business houses and professional men. For manufacturers and wholesalers the system is specially adapted for keeping a list of customers, sales record, employee record, credit department, mail-order department, storeroom or stock register, quotations received, instalment accounts, cost of production, patterns and drawings.

The card index system is almost universally used by public libraries, municipal, county and State institutions, churches and Sunday-schools, building and loan associations, physicians and dentists, real-estate agencies, and can be used to advantage in every line of business.

M. L. Himmel & Son, 403-405 East Baltimore street, Baltimore, Md., have a large factory in this city, in which they manufacture some very practical filing cabinets. This firm works wood in many ways, manufacturing an attractive line of desks, office fittings, etc., among which card-index outfits and filing cabinets naturally belong.

Figures 1, 2 and 3 illustrate, respectively, a 12-drawer plain oak side-opening cabinet for the preservation of letters, a 60-drawer side-opening cabinet and for sectional drawers, also for filing letters, and a small two-drawer card-index cabinet. The capacity of this index cabinet is 2200 light, 1700 medium or 1300 heavy weight record cards and 80 guide cards.

### Floors.

It is curious that whenever people wish to be particularly elegant in the furnishing of their homes or wish to do a thing in a particularly elegant way they revert to half-forgotten customs of from 50 to 200 years ago.

The homes of well-to-do people are



FIG. 2.

card index admits of these changes continually without impairing the value of the record or necessitating its rewriting.

ing furnished today with Old Dutch furniture, so heavy, so massive and so solidly built that it is an effort to move



FIG. 3.

and the record is always free from dead or obsolete matter.

Card index systems are used by nearly

the chairs. This is an attractive and comfortable fad. The Old Dutch is ornamental in its plainness and under-



ly comfortable and pleasant to use.

Another custom, supposed to have originated in Hungary two centuries ago, is the laying of parquet floors. The reviving custom of flooring homes with a carpet of polished wood or a parquet pattern is also a good and sensible one, and when in connection with this fact is taken that modest patterns are not prohibitively costly and with little care will last indefinitely, the custom appears still more commendable.

This style of flooring has been slowly reviving for about twenty-five years—slowly, because until almost now men capable of laying a floor properly were scarce and high-priced. Today the custom is fairly on the rising slope of its wave. It is popular, and deservedly so, as, aside from the cleanliness of a hardwood floor, it is very beautiful, and a sober pattern of parquet or wood carpet is a suitable background for the most beautiful room.

J. M. Adams, 227 North Charles street, Baltimore, has devoted over twenty years to the study and perfection of flooring, and is now an expert specialist on the laying and care of any kind of a good hardwood floor.

Oak is the most generally used of all woods for this purpose, and takes a beautiful polish. There are many other suitable woods, and with the beautiful natural colors of the varieties and the polish imparted by expert handling the floors in the homes of ordinarily well-to-do people and people of moderate means are as attractive as the prettily-papered, frescoed or otherwise ornamented wall of their homes, and harmonize with any of these.

Mr. Adams' work is of a high order and of a satisfactory nature.

#### Factory of Nordyke & Marmon Co.

The business of Nordyke & Marmon Co., 86 Dey street, Indianapolis, since its beginning, over fifty years ago, has been confined exclusively to the manufacture of flour and cereal mill machinery and to building complete mills for the manufacture of flour and cereal products.

The "Quaker City" works of this firm, located in West Indianapolis, was purchased in 1876, in which year the present company was incorporated.

The factory is systematically arranged, with the woodworking department on one side and the ironworking on the opposite side, with the finishing, storage and shipping department connecting the two at the north end. The lumber-yard and the storage for raw materials, supplies, etc., for the ironworking department are located at the south end, where facilities are provided for handling materials expeditiously from cars. Between the two wings are located the boiler-house, the buhr-stone mill department and the storage building for finished and unfinished iron parts of the machines manufactured.

A private switch connecting with the Belt Railway extends nearly the entire length of the property and into the shipping department building.

Adjoining, and connected by a series of tracks to the extensive lumber-yard, is a large brick dry-kiln, provided with special cars and transfer tracks on each end. The planing mill is in a one-story brick building 52 feet wide by 254 feet long, and is equipped throughout with modern machines and devices. Shavings and sawdust are drawn from the machines and blown into bins in the boiler-house.

The bench shop is a two-story brick building 52 feet wide by 243 feet long, and is especially equipped for building bolting machines, purifiers, dust collectors, bran dusters, packers and other machines composed largely of woodwork.

The department for building housings for roller mills, automatic feeders, etc., is located in the building just off of the office and convenient to the roller mill erecting department in the machine shop.

Though the new foundry, 104x330 feet, is not yet completed, the new storage building for iron and foundry supplies is now in use. This building has deep brick bins below the surface of the ground, with frame structure above. Materials are unloaded from cars into these bins. With special foundry supply cars, overhead track, scales and automatic carrying system all materials are delivered to the

such as bran dusters, packers, mill shell-ers, cleaners, etc.

The storehouse is in a three-story brick building 58x100 feet, and is used for storing finished and unfinished parts. This building also contains the storerooms for belting, hardware and all kinds of mill and shop supplies.

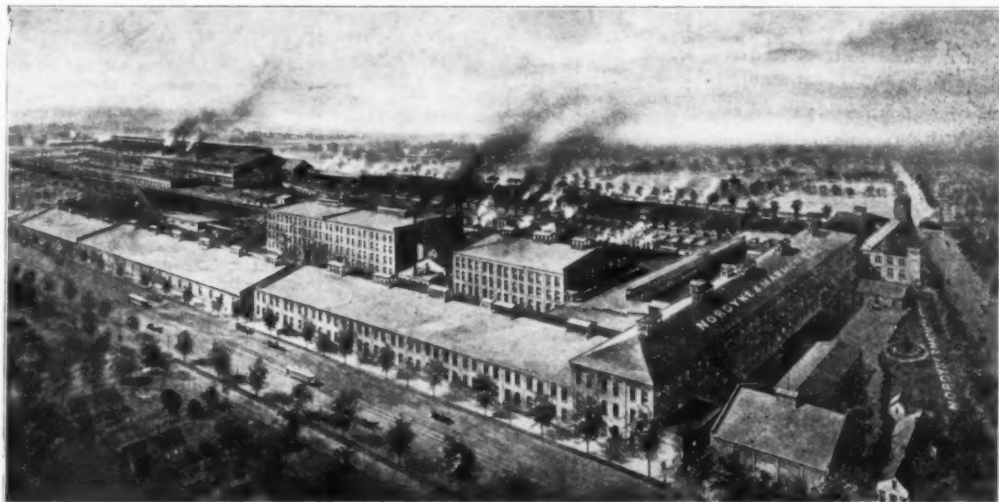
The space between the machine shop, the shipping department building and the storage building is roofed over, providing an erecting department for large iron-work and for receiving from and loading to cars under cover.

The bolting cloth department is pleas-

new foundry, which is to be 104x330 feet, part of which will be two stories.

The machinery built by Nordyke & Marmon Co. is noted for high quality in construction and finish, for its mechanical excellence, durability and efficiency. The company, in its work of mill building, is also noted for thoroughness and close attention to details, and for the success, from the milling and operating stand-points, of the mills it builds.

The officers of Nordyke & Marmon Co. are Daniel W. Marmon, president, and Walter C. Marmon, secretary and treasurer.



PLANT OF THE NORDYKE & MARMON CO., INDIANAPOLIS, IND.

foundry quickly and with the minimum labor of handling.

The tin shop is located at the far end of the ironworking side. In the same building, occupying a room 40x150 feet, is a machine shop equipped recently with a full line of machine tools specially adapted to certain parts of the ironwork.

In a large room between the foundry and pattern shop the patterns are stored systematically, each pattern being numbered and so placed as to be quickly found when needed.

Next in line is the foundry, equipped with special molding machines for certain parts, overhead track system with air hoists, heavy cranes and travelers, two large cupolas and such other appliances usually found in a well-regulated foundry.

Adjoining the foundry is the main machine shop, which is equipped with new, late improved machine tools.

A new shafting department of latest improved design has just been installed, with which turned shafting of the best quality is made, straight, true to gauge and finely polished.

At one side of the room is a large tool-room, where all special tools for machine work, corrugating tools, etc., are made, and where two automatic gear cutters are employed cutting gears for differential reels, rolls and other milling machines.

In the north end of the machine shop next to the office the roll-grinding and corrugating department is located.

To the east of this department, in the machine shop, is the roller mill erecting department, provided with every modern facility for the building of roller mills.

The blacksmith shop, besides five forges, is equipped with two large power hammers for welding and forging, power cutters, benders and special heating and tempering furnaces.

The buhr-mill department occupies the two lower floors of a four-story brick building 46x144 feet, the third and fourth floors being used as a bench shop for the erection of some of the special machines,

antly situated in a well-lighted room on the second floor of the shipping department building.

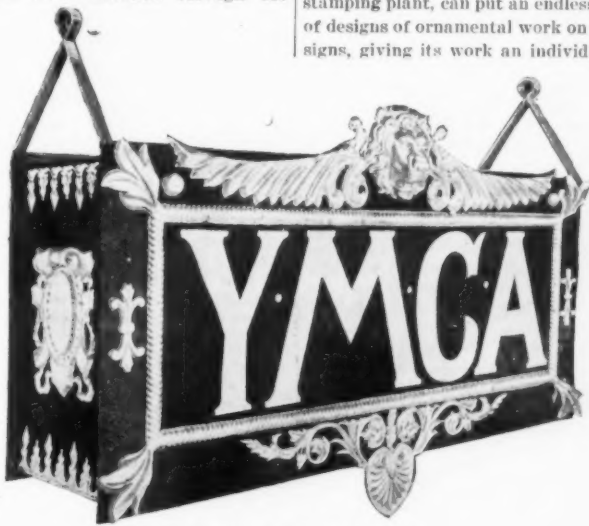
The draughting department is located in a large room above the office, beautifully lighted and well ventilated. A fireproof vault contains cabinets for filing all machinery drawings and mill plans.

The office occupies a floor space of 3500 square feet, and is well lighted and ventilated. A private telephone exchange connecting twenty-five telephones on office desks and in all shop departments furnishes convenient communication through the

#### Illuminated Metal Signs.

The Edwards Manufacturing Co., main office and works 115 Sycamore street, Cincinnati, recently put on the market a day and night sign made entirely of metal.

A sign that looks cheap in a few months will surely prove a boomerang, for an article is judged by the style of advertising used. It is claimed for the Edwards metal sign that the action of the sun and rain does not affect it, and that it is as effective by day as by night. The Edwards Manufacturing Co., having its own stamping plant, can put an endless amount of designs of ornamental work on different signs, giving its work an individuality of



ILLUMINATED METAL SIGN.

main city exchange and with the several departments.

The several new brick buildings erected are very substantial, and of slow-burning construction. Besides fire protection from the city system, the company has its own water-works, with mains leading to all parts and a well-organized fire department of several companies, each having its fire-fighting apparatus.

The plant occupies about twelve acres of ground, and the buildings contain nearly 250,000 square feet, or about five and one-half acres, of floor space, not counting the

its own. The illustration shows a sign where the stamped metal is in bold relief, which has caused much favorable comment. The idea of using the architecture of the ancient Greeks in conjunction with the electricity of the present day is certainly unique in the advertising field. Two or three 16-candle-power globes will illuminate this sign, so that it can be seen at a great distance. The sign is shipped complete ready for connecting the wires and inserting the globes.

Subscribe to the Manufacturers' Record.

# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

## ALABAMA.

Athens—Sewer System.—It is proposed to arrange for the construction of a municipal sewer system, and engineers and contractors are now being asked to correspond. Thos. C. McClellan can be addressed.\*

Christiana—Gold and Graphite Deposits.—Reports state that C. H. Latham has discovered and will develop gold and graphite deposits on his properties.

Coal City—Coal Mine.—Vulcan Coal Co. of Cedartown, Ga., is opening its second coal mine at Coal City. A modern plant for mining and handling is proposed.\*

Corona—Coal Mines.—Corona Coal & Iron Co., reported lately as installing mining plant, is rehabilitating the old plant formerly operated by the Corona Coal & Coke Co. A larger plant may be installed later on.

Decatur—Oak-extract Plant.—American Oak Tanning Co. will rebuild at once its burned plant. All the needed materials have been purchased.

Ensley—Ice Plant.—The Birmingham Ice Factory Co. of Birmingham has purchased site and will erect ice factory at Ensley.

Huntsville—Hoop and Heading Factory.—Huntsville Hoop & Heading Co. has been organized, with capital stock of \$12,000, and Joseph Minchener, president; W. E. Henderson, vice-president, and Ed. H. Nixon, general manager. Plant is now being built and was reported recently as projected by Minchener and Henderson.

Montgomery—Stove Works.—Commercial and Industrial Association is arranging for the establishment of branch plant to cost \$40,000 by a Northern stove-works company.

Opelika—Electric-power Plant.—Opelika Electric Light Co. will double the capacity of its electric plant, and has ordered the necessary machinery. A 500-horse-power engine, new dynamos and other equipment will be included. About \$200,000 will be expended.

## ARKANSAS.

Hot Springs—Fuller's Earth Mining and Manufacturing.—Incorporated: Hot Springs Earth Co., with a capital stock of \$100,000, fully paid up. The charter states company will mine, prepare and sell fuller's earth and other minerals for making toilet and medic-

nal compounds; H. B. Hilgeman, president; J. F. Howard, vice-president; E. H. Gregory, secretary and treasurer.

Hoxie—Mercantile.—Incorporated: St. Louis Grocer Co., with a capital stock of \$50,000; H. Arudt, president; S. Riegler, vice-president; W. A. Townsend, secretary.

Lake Village—Electric and Ice Plants.—Thomas Neely, Frank Strong and James G. Yeager have received lighting franchise. They will organize a company to take over the franchise, erect electric-light plant, and to establish ice factory.

Little Rock—Lumber Company.—Incorporated: Lincoln Lumber Co., capital stock \$20,000, by C. W. Phillips, G. E. Loudermilk, C. P. Blanchard and M. G. Phillips.

Malvern—Ice Plant, etc.—Malvern Milling & Ice Manufacturing Co., reported last week with \$25,000 capital, has flour mill complete, and has just contracted for erection of a 10-ton ice plant.

Paragould—Brick Works.—Chartered: Paragould Brick Co.; R. C. Grizzard, president; J. R. Hafford, vice-president; Charles Pratt, general manager; M. F. Collier, secretary, and H. W. Wolsey, treasurer; purpose, to manufacture bricks.

Pine Bluff—Queensware Company.—Incorporated: Ryland Queensware Company, capitalized at \$25,000; J. E. Boyce, president; Fred Fox, vice-president; James Robert Ryland, secretary and treasurer.

## FLORIDA.

Alachua—Warehousing.—Alachua Warehouse Co. has been incorporated to conduct general warehouse business for cotton and agricultural products, by J. S. Dupuis, J. R. Williams and James Chestnut.

Bartow—Cannery.—The farmers of Polk county are endeavoring to secure the establishment of a cannery. "Secretary of Farmers' Institute" can probably give information. Address care H. P. Walker.

Fernandina—Lumber Plant.—C. E. Riddle will soon contract for erection and equipment of saw-mill of 25,000 feet capacity daily; 125-horse-power steam plant will be included.\*

Jacksonville—Naval-stores Plant.—W. B. Myers, H. A. McEachern, J. H. Gross and B. M. Baxley have incorporated the Naval Stores Manufacturing Co., with capital stock of \$50,000, to manufacture naval stores, etc.

Jacksonville—Flower-pot Works.—John H. Pitt will establish plant for manufacturing a flower pot of special design.

Pensacola—Telephone Conduits.—Southern Bell Telephone & Telegraph Co. will expend about \$20,000 to construct underground conduits for its wires and otherwise make improvements to telephone system.

Quincy—Sugar Mill.—Florida, Havana & Sumatra Co. will build the sugar-syrup mill reported last week. Company will produce about 1000 barrels this season, and probably build a much larger plant next year. W. S. Snyder is superintendent.

Tallahassee—Lumber Plants, etc.—J. P. Williams, John A. C. Carson, Josiah O. Hatch, John R. Sharpe and others have incorporated the J. P. Williams Company, with capital stock of \$50,000, for dealing in land, erecting lumber plants, etc.

## GEORGIA.

Atlanta—Roofing Contractors.—Incorporated: Atlanta Cornice & Roofing Co., capitalized at \$3000, by Thomas F. Kennedy, Charles McCarthy and Daniel A. Farrell.

Atlanta—Grocery Company.—Chartered: Phillips & Tolbert Co., capital stock \$25,000, by J. W. Phillips, A. M. Phillips and M. Tolbert.

Camilla—Steam Laundry.—Ed. T. Cochran contemplates installing a steam laundry.\*

Cedartown—Cotton Mill.—Standard Cotton Mills' No. 2 plant, referred to last week, will have 3000 mule spindles and other necessary equipment. Construction work is now in progress on buildings. A. F. Walker, Austell Building, Atlanta, Ga., is engineer in charge.

Columbus—Brick Works.—The Berry Brick Co. has been incorporated, with capital stock of \$40,000, by George O. Berry, Alfred E. Berry and M. W. Berry, for the manufacture of bricks.

Columbus—Shoe Dealers.—Incorporated: Britt-Carson Shoe Co., capitalized at \$40,000, to deal in shoes and shoe materials and supplies, by W. D. Britt, R. A. Carson and W. C. Pease.

Griffin—Planing Mill.—Gresham Planing Mill Co. has begun construction of its new planing mill; building to be 54x215 feet and be equipped with complete plant of modern machinery, including electric-light plant.\*

Savannah—Cigar Factory.—It is stated the American Cigar Co. (offices in New York city) has signed contract to establish the \$100,000 branch cigar factory reported recently.

Savannah—Harbor-Improvement Contracts. P. Sanford Ross (Incorporated) of Jersey City, N. J., has received contract at about \$450,000 for harbor work; Atlantic, Gulf & Pacific Co. of New York has a contract about \$559,390, and Morris & Cummings Dredging Co. of New York has contract at \$77,000 for dredging Brunswick harbor.

Sewanee—Gold Mine.—Azalea Mining Co. has been incorporated, with capital stock of \$40,000 and headquarters at Atlanta. It has bought and will develop the Forsyth county gold mine, formerly owned by E. D. Little of Sewanee; tract contains 600 acres.

Tifton—Electric-light Plant.—L. P. Thurman has purchased the electric-lighting franchise referred to some weeks ago, and will arrange to build plant at once. Tifton Ice & Power Co. will be organized, with capital stock of \$10,000, to own and operate the plant, by L. P. Thurman, S. M. Roberts, J. J. L. Phillips, H. H. Tift and others. Mr. Thurman is secretary.

Waycross—Sugar Mill.—W. J. Smith, C. I. Allen, J. S. Bailey and others will organize a company to experiment in the cultivation of sugar-cane and probably build a sugar mill. Twenty-five acres have been secured for planting.

## KENTUCKY.

Dixon—Coal Mines.—C. A. Doris, F. M. Baker, J. W. Henson and others are forming company to prospect for coal.

Harlan County—Coal Lands.—Some members of the Deering Harvester Co. of Chicago have purchased an acreage of coal land in Harlan county, and developments may be undertaken later on. (This item was inaccurately referred to last week under Clover Fork, Va.)

Kuttawa—Cooperage.—Busby-Hussey Cooperage Co., with \$10,000 capital stock, has been incorporated by Charles Busby and W. P. Hussey.

Louisville—Publishing.—Chartered: Inland Farmer Publishing Co., with \$5000 capital stock, by F. S. Powers of Jeffersonville, Ind., and J. H. Sutcliffe and C. F. Wood of Louisville.

Middlesboro—Coal Mines.—Sagamore Coal Co. is proceeding with the development of its coal mines, and may in the future install power plant and electric haulage equipment. The mine is being timbered now, and tippie has been completed. Daily output will be 1000 tons.\*

Nebo—Coal Mines.—Will Coil is prospecting for coal, and expects to find sufficient quantities to warrant the installation of a modern machinery plant for mining.

Paducah—Rolling Mill and Steel Plant.—Kentucky Iron Co. is reported as contemplating the construction and equipment of a steel plant and rolling mill in 1903.

Preston—Oil Wells.—Mountain Valley Development Co. has ordered machinery equipment for oil-well drilling, and will begin work at once. Thos. L. Walker of Lexington, Ky., is secretary.

Salem—Mineral Lands.—It is reported that Henry E. Crawford, mining engineer, of New York city, will purchase and develop mineral lands near Salem.

Sturgis—Bottling Plant.—Lily & Groeg will establish pop factory and bottling plant.

Sturgis—Coal Mines.—A New York syndicate has purchased the Paducah Coal Co. and its properties near Sturgis, and will thoroughly develop the coal mines, install modern mining plant, etc. George Blanchard, representing the buyers, is in charge.

## LOUISIANA.

Gueydan—Drainage Canal.—Chartered: Inland Canal Co., with a capital of \$100,000, to excavate about 500,000 cubic yards of earth in the marsh south of Gueydan to drain the Gueydan drainage district; J. M. Boozé of Roanoke, La., president; T. J. Curtis, vice-president; Henry L. Gueydan, secretary and treasurer. The other directors are Bernard Titché of New Orleans, D. L. McPherson, V. Wainwright and C. D. Babbit of Abbeville, La. C. D. Babbit is engineer in charge.

Lake Charles—Irrigation Canal.—The Fresh Water Co. has been incorporated, with capital stock of \$300,000, and J. W. McFatter, president; F. C. Baker, vice-president; J. E. Glisson, secretary, and J. E. Bland, general manager. Their purpose is to build a canal to irrigate 20,000 to 30,000 acres of rice lands, and about \$200,000 is to be expended for the improvements.

New Orleans—Trolley Attachment Manufacturing.—Incorporated: Burke Perfection Single Wire Trolley Co., Ltd., capitalized at \$100,000, for manufacturing and introducing patented trolley-wire devices, etc. Patrick J. O'Keefe is president; Thomas J. Burke, vice-president, and George W. Butler, secretary.

New Orleans—Vehicle-wheel Factory.—The Johnson Wheel Co. has been incorporated, with capital stock of \$1,000,000, for the purpose of establishing plant for the manufacture of J. N. Johnson patent vehicle wheels, etc. Albert Mackie will be president; J. N. Johnson, vice-president, and E. H. McFall, secretary. N. E. Shriver, W. T. Burns, Chas. Carroll and J. E. Bennet are also interested.

Shreveport—Woodworking Plant, etc.—Allen & Currey Manufacturing Co., Ltd., has let contract for erection of building for planing mill and woodworking plant to replace establishment that was burned last spring. Contract price for building is \$12,982, and the machinery will cost about \$20,000.

## MARYLAND.

Baltimore—Cooperage Plant.—It is reported that Kimball, Tyler & Co., Central and Canton avenues, have purchased site 47x221 feet with the intention of erecting a large cooperage plant.

Baltimore—Can Factory.—Incorporated: Elton Specialty Co., for manufacturing tin-can tops, by William E. Rowe, William W. Marsden, John G. Herman, Henry Stentz and William B. Hammond. The capital is \$1000.

Baltimore—Gas Plant.—Consolidated Gas Co. has under consideration extensive enlargements and improvements of its lighting plant. Alton S. Miller is general manager.

Baltimore—Belting Factory.—Baltimore Belting Co. has equipped a modern belting factory at 6 East Lombard street, and will produce the high-grade goods.

Baltimore—Biscuit Factory.—Jesse Hilles, Joseph W. Jenkins, Jr., and Harry W. Maguire have incorporated Maryland Biscuit Co., with capital stock of \$250,000, for operating a biscuit factory.

College Station—Vaccine Factory.—The National Vaccine Establishment, Ralph Walsh of Baltimore, president, will erect vaccine factory at College Station. Charles Balderson of Philadelphia, Pa., has prepared plans for the buildings, to cost \$15,000.

Cumberland—Telephone System.—Western Maryland & Hyndman Telephone Co., reported organized last week with \$25,000 capital, will operate telephone lines connecting Pennsylvania towns with Ellerslie and Cumberland, Md. Contracts for all machinery and equipment required have been awarded. George W. Randall is general manager.

Garrett County—Coal Mines.—H. G. Davis & Bro. and C. B. Elkins, all of Elkins, W. Va., have purchased and will develop a large tract of coal land in Garrett county.

Hagerstown—Metallic-bed Factory.—The Metallic Bed Co., reported last week as incorporated with capital stock of \$15,000, will establish factory. J. C. Bolling is secretary. Chas. Stonebaugh is engineer or architect in charge, also contractor.\*

Merrill—Gold Mine.—Blacklick Gold & Silver Mining Co., E. Merrill, treasurer, has begun the development of its property, and contemplates erecting a concentrating plant.\*

Washington, D. C.—Electric-power Plant.—H. J. Bingham of Akron, Ohio, has completed plans for the building for Washington, Baltimore & Annapolis Railway Co.'s proposed electric-power plant. Building will be four stories high, of brick, and cost about \$300,000.

Washington, D. C.—Steam Bakery.—Chartered: Keystone Home Baking Co., to have a capital stock of \$100,000 and conduct a general baking business. The incorporators are Geo. C. Boynton, Nathaniel Pate, Moses Rose, Meredith A. Jenkins and Arthur E. Sumner.

Washington, D. C.—Furnaces, etc.—Incorporated: Mathy Company, to manufacture, sell and deal in furnaces, ranges, sheet and other metal work; capital \$16,600; incorporators, Joseph Mathy, John B. Flick, William



H. Johnson, Peter B. Burke and Samuel Giouvanetti.

#### MISSISSIPPI.

Brass—Mercantile.—Chartered: Hawkins-McRaney Company, capitalized at \$20,000, by D. C. McRaney, W. R. Holloway and others.

Greenville—Cold-storage Plant.—Armour & Co. of Chicago state that there is no truth in the rumor that they will build cold-storage plant at Greenville.

Greenville—Manufacturing.—Delta Manufacturing Co. has been incorporated, with capital stock of \$100,000, by Edmund Taylor, B. R. Pierce and J. D. Barbee, for manufacturing carbonated waters, candies, etc.

Gulfport—Foundry and Machine Works.—Gulfport Foundry and Machine Works, reported organized last week with \$25,000 capital, has engaged E. M. Lake as superintendent in charge of erection and equipment of plant. About \$6000 will be expended for the equipment of machinery.\*

Hattiesburg—Light and Power Plant.—M. Hemphill, R. H. Hemphill, H. A. Hemphill and others have incorporated the Hattiesburg Light & Power Co., with capital stock of \$30,000, to furnish light and power.

Meridian—Cotton Mill.—Capitalists have made a proposition for the establishment of a \$500,000 cotton factory, providing that local investors furnish \$125,000. T. C. Carter, president of Meridian Cotton Co., is endeavoring to have the proposition met.

Natchez—Cotton Mill.—R. F. Learned, Geo. W. Koontz, L. P. Conner and others have incorporated Natchez Cotton Mills, with capital stock of \$100,000. Plant is established; it has 22,500 spindles and 576 looms.

Pascagoula—Electric-light and Water Works.—The city contemplates constructing an electric-light plant and a system of water-works. Address "The Mayor."

Perkinston—Box Factory and Cannery.—The establishment of a box and crate factory and cannery is proposed, and the Perkinston Truck Growers' Association, J. E. Forehand, secretary, can give information.\*

#### MISSOURI.

Carthage—Mining.—Chartered: Teddy R. Mining Co., to buy, sell, lease and handle mines and mining lands; capital stock \$40,000; incorporators, James Luke, Jamot Brown and Byron A. Ash.

Kansas City—Stationery Company.—Incorporated: Schooley Stationery Co., to buy, sell and manufacture office stationery and supplies; capital stock \$10,000; incorporators, Arthur Schooley, M. E. Schooley and J. B. Schooley.

Kansas City—Rice Mill.—A. C. Hurd and associates have let contract for the erection and equipment of a rice mill of 400 barrels capacity daily.

Kansas City—Electric and Irrigation Plant.—Fortuna Land & Mining Co., reported incorporated last week with \$50,000 capital, contemplates constructing plant to drain land for leasing purposes; also contemplates electric-light plant. John A. Rodgers is secretary; offices at 502 Broadway.\*

St. Louis—Rice Mill.—Contract has been awarded for the erection and equipment of a larger rice mill to be operated by company now being organized. It is said John A. Belton of Crowley, La., is interested.

St. Louis—Buggy Works.—Chartered: Banner Buggy Co., to manufacture, buy and sell buggies, carriages, wagons and other vehicles; capital stock \$50,000; incorporators, W. D. Leeper, Chillicothe; Russell E. Gardner, S. G. Hunsaker, James D. Catley and Robert L. McLaran.

St. Louis—Chemical Company.—Incorporated: Peru Tonic Chemical Co., with a capital of \$25,000, by William Lambert, Herman A. Finke, F. R. Carl, C. A. Handley and L. C. Lambert.

St. Louis—Real Estate.—Incorporated: Renard Real Estate & Investment Co., with a paid-up capital of \$18,000, by Agnes L. Fuchs, Alvina Feineman, Carl E. Fuchs, Frederick J. Feineman and others.

St. Louis—Electric Company.—Maloney Electric Co. has been incorporated, with capital stock of \$40,000, by T. O. Maloney, H. Wurdack and J. J. Mullen.

St. Louis—Heating Company.—John B. Hughes Heating Co. has been incorporated, with capital stock of \$20,000, by John B. Hughes, Alvin Eichler and Theodore M. Hunt.

St. Louis—Mining.—Chartered: El Lucero & San Augustin Mining Co., with capital stock of \$200,000, for mining purposes, by John H. Wolf, Richard Muehlberg, William Boeck, Charles J. Fox and John Hancock.

St. Louis—Incandescent-lamp Company.—Incorporated: National Incandescent Lamp

Co., with a paid-up capital of \$5000, by Geo. W. Wadlow, James H. Parker and Henry M. Mun; also United States Incandescent Lamp Co., with capital of \$10,000, by same parties.

St. Louis—Roofing Factory.—Cory-Lauterman Asphalt Co., reported incorporated last week with \$50,000 capital, will establish plant for manufacturing asphalt roofing, building papers, etc. Contracts for building are about closed, also the machinery contracts. Frank Hauser is engineer in charge; offices at 206 Walnut street.\*

St. Louis—Oil Company.—Incorporated: The Rock Springs Oil Co., with a capital of \$5000, by George Horn, Martin W. Lorenz, Anna Lorenz, Josephine Horn and Julius Horn.

#### NORTH CAROLINA.

Andrews—Woodworking Plant.—Thomas Sherk contemplates building a plant for manufacturing cotton-mill supplies, wagon materials, etc.\*

Elizabeth City—Timber Lands.—W. H. Bosley of Baltimore, Md., and associates of that city have purchased for development 15,000 acres of timber land in Dismal Swamp and optioned 30,000 acres additional.

Gastonia—Telephone Systems.—Piedmont Telephone & Telegraph Co. has been incorporated, with capital stock of \$30,000, and privilege of increasing to \$100,000. It combines the telephone systems of Gastonia, Kings Mountain and others towns, and improvements will be made. W. T. Love is president, and R. B. Babbington, superintendent.

Gastonia—Cotton Mill.—B. G. Rhyne and associates will establish a cotton-weaving mill. A 24x60-foot frame building is now being erected, and twenty looms will be installed.

Greensboro—Paper Mill.—It is reported that C. R. Bennett of Fulton, N. Y., is seeking site for the establishment of a paper mill in the South, and will probably select Greensboro.

Greensboro—Paper-mill Machinery Works.—Reports state that R. E. Rust of Fulton, N. Y., contemplates establishing paper-mill machinery works in the South, and will probably select Greensboro as the site.

High Point—Chair Factory.—John W. Petty and associates will build a chair factory.\*

Townsville—Chair Factory.—D. A. Burwell contemplates establishing a chair factory.\*

#### SOUTH CAROLINA.

Calhoun Falls—Town Development.—W. F. Cox of Anderson, S. C., has purchased town property at \$14,000, and will organize a company for developing same.

Charleston—Lands.—Chartered: Marsh Lands Investment Co., capital stock \$10,000, by P. R. Rivers, Ben S. Rivers and Julian Mitchell, Jr.

Charleston—Land Company.—J. F. Gailard, R. J. Macbeth and Jos. W. Williams have incorporated the Charleston Suburban Land & Investment Co., to have \$5000 capital stock.

Chester—Seed Farm.—Chartered: Excelsior Seed Farm, capital stock \$10,000, by W. F. Stevenson of Cheraw, S. C., and C. F. Moore of Bennettsville, S. C.

Clio—Lumber Company.—Charles Manning, J. H. Bennett and others have organized Carolinas Pine & Hardwood Co., with capital stock of \$3000, to deal in lumber, etc.

Dillon—Mercantile.—Incorporated: Moore Company, capitalized at \$12,000, by R. S. Moore of Dillon and J. W. Moore of Bostwick, Fla.

Easley—Creamery.—Incorporated: Easley Creamery Co., to manufacture butter, cheese, etc.; capital \$2000; J. T. Lathan, president; W. A. Hamilton, vice-president, and W. L. Pickens, secretary.

Gaffney—Tin Mines.—S. S. Ross is reported to have found tin deposits on his land, and it is said a company will be organized to develop.

Greenville—Finishing Plant.—Union Bleaching & Finishing Co., reported last week, states its plant will be equipped for bleaching, dyeing and finishing all kinds of cotton piece goods, initial capacity to be ten tons (or about 100,000 yards) per day. All the finishing machinery and most of the other equipment has been contracted for; buildings have also been contracted for. About \$30,000 will be cost of plant. C. R. Makepeace & Co. of Providence, R. I., are architects-engineers in charge. James B. Duggan of Utica, N. Y., is president, and R. B. Arrington of New York is secretary. Address company at Greenville.\*

Greenville—Cotton Mill.—The Huguenot Mills will establish an additional plant to contain 250 looms and complement for manu-

facturing gingham. Contract for the machinery will be placed this week. Suitable buildings have been secured; present plant has 6000 spindles and 329 looms; O. A. Robbins Company of Charlotte, N. C., engineer in charge.

Greenville—Warehousing Company.—Chartered: Briggs-Browning Warehouse Co., capitalized at \$10,000. W. A. Briggs is president, and W. B. Browning, secretary.

Jonesville—Real Estate.—Chartered: Jonesville Real Estate Co., capital stock \$5000, by J. J. Littlejohn and W. H. S. Harris.

Laurens—Cotton Mill.—Watts Mills, reported incorporated last month with \$200,000 capital, has organized with W. E. Lucas, president, and decided to build plant of 15,000 spindles and 500 looms for manufacturing fine goods. J. E. Shirrine of Greenville, S. C., is engineer in charge of construction.

Lumber—Lumber Plant.—Bridgers & McKelthan Lumber Co. has let contracts for rebuilding and equipping its burned lumber plant; loss was \$10,000. J. L. Wiggins is the contractor. J. C. Foster (of Norfolk, Va.) is architect-engineer in charge. Machinery all bought.

Mullins—Lumber Company.—Carolina Lumber Co. has been incorporated, with capital of \$2000, by R. F. Cooper, president, and L. B. Smith, secretary.

Union—Power Fuel.—Incorporated: Power Fuel Co., capital stock \$5000, with A. P. H. Walker, president, and S. M. Rice, Jr., vice-president-treasurer.

Williamston—Supply Company.—Incorporated: Southern Supply Co., capitalized at \$25,000, by O. K. Cowing, W. C. Manning and A. Corey.

#### TENNESSEE.

Clarksville—Plow Works.—Ground Hog Plow & Foundry Co. has been incorporated, with capital stock of \$50,000, acquired and will continue the plow and foundry plant of Drane & Co. The plant will be enlarged and improved by the addition of new machinery.

Memphis—Iron Foundry.—John White & Sons will rebuild at once their burned iron foundry; the loss was \$30,000.

Memphis—Lumber Plant.—E. A. Gillette & Sons of Boston, Mass., are preparing to build the lumber plant reported last week, and announce that equipment will be installed for a daily output of 10,000 feet. Dimension stock for vehicle works will be produced. E. A. Gillette Bros. will be the firm title here.

Nashville—Machine Works.—Eagle Machine Co. and Thomas Gairns Shop have consolidated as the Rock City Machine Co. and elected T. M. Gallagher, president; C. M. Gallagher, secretary-treasurer, and J. D. Stone, general manager. Plant is valued at \$5000, and in the near future improvements are expected to be made. J. D. Stone has charge of plant.

Nashville—Woodworking Plant.—Nashville Hardwood Flooring Co. has been organized, with capital stock of \$100,000, and will establish flooring plant. Capital stock is \$100,000. Frame buildings with metal roofs will be erected. John B. Ransom is president; W. K. Phillips, vice-president, and Arthur B. Ransom, secretary.

Nashville—Sewer Contract.—E. T. Lewis & Co. have received contract from the city for construction of sewer extension. About \$50,000 is the amount involved.

Nashville—Mining.—Chartered: Spring Creek Mining Co., with a capital stock of \$5000, by W. S. Nunnally, H. W. Brennan, George B. Cooper, W. A. Duncan and E. W. Easley.

Nashville—Lumber Manufacturing, etc.—Chartered: Rock Creek Lumber & Mining Co., capitalized at \$55,000, to manufacture lumber, mine coal, iron, limestone and other minerals. The incorporators are W. J. Kramer, D. L. Traux, H. H. Berry, J. D. Traux and Frank Berry.

Nashville—Mining.—Charter granted Spring Creek Mining Co., capitalized at \$5000, to mine and quarry iron ore and other minerals, by W. S. Nunnally, H. W. Brennan, George B. Cooper, W. A. Duncan and E. W. Early.

Nashville—Machine Shop.—Rock City Machine Co., located at 117 North College street, has been organized with T. M. Gallagher, president, and J. D. Stone, general manager, to operate machine shop formerly owned by Thomas Gairns, now retired.

Summitville—Gas and Oil Wells.—Summitville Oil, Gas & Mining Co. is correct title of corporation reported last week with \$50,000 capital. It controls property for development. F. B. Shirley, president, is in charge.\*

#### TEXAS.

Beaumont—Rice Company.—Chartered: San Jacinto Rice Co., capital stock \$25,000, by W. B. Dunlap, G. W. Collier, H. H. Turner,

R. A. Greer, B. R. Nowell, W. M. Carroll and H. D. Keith.

Beaumont—Brick Works.—It is stated the Diana Brick & Manufacturing Co. will build brick plant with daily output of 100,000.

Beaumont—Oil Wells.—Chartered: Sentinel Oil Co., capital stock \$1,000,000, by George W. Smith, Albert O. Hecht, A. R. Kroh of Chicago, Ill.; A. M. Shellito of Evanston, Ill.; W. P. Graham, B. W. McHenry of Rochelle, Ill.; Fred W. Browne of Oak Park, Ill.; purpose, to drill for oil.

Dallas—Ice and Cold-storage Plant.—Chartered: Central Ice & Cold Storage Co., capital stock \$50,000, by John W. Field, John A. Barnard, W. E. Beatty, J. O. Jones and W. C. Jones.

El Campo—Machine Company.—Incorporated: Lindstrom-Boehm Machine Co., capital stock \$10,000, by F. A. Boehm, M. J. Olson, C. Lindstrom, W. Finkelstein and P. J. Isaacson.

El Paso—Telegraph Lines, etc.—Texas & Western Telegraph & Telephone Co. of Douglas, Ariz., with capital of \$200,000, and Southwestern & International Express Co., also of Douglas, with capital of \$200,000, have been granted permits to do business in Texas. Their principal office in Texas is at El Paso. The incorporators are the same, as follows: James Douglas, William E. Dodge, Arthur C. James and Cleveland H. Dodge, all of New York city; Walter Douglas of Bisbee, Ariz.; Joseph Van Vleck of Montclair, N. J., and Joseph Notman of Brooklyn, N. Y. These corporations are auxiliary to El Paso & Southwestern Railroad.

Forney—Hay Company.—Chartered: Forney Hay Co., capital stock \$25,000, by A. F. Duke and R. C. Spence of Forney, and S. B. Gillespie of Cale, I. T.

Fort Worth—Cattle Commission Company.—A \$100,000 cattle commission company has been organized, with Marion Sansom, president; C. C. Slaughter, vice-president, and Charles L. Ware, secretary.

Fort Worth—Kaolin Mining and Manufacturing.—It is stated that Indianapolis (Ind.) experts in the kaolin industry are investigating kaolin properties near Fort Worth with a view to purchase and development for mining and manufacturing. Names of interested parties not announced yet.

Houston—Mining, etc.—Chartered: Arnold Oil & Mining Co., capital stock \$25,000, by John Lovejoy, C. C. Street, Howard F. Smith, Henry F. Ring and John H. Ruby.

San Antonio—Vending Machine Works.—Fender Vending Machine Co., reported incorporated last week with \$10,000 capital, has offices at 616 Market street, and proposes manufacturing a patented cigar vending machine. Contract may be let for the manufacturing.\*

Strawn—Coal Mines.—Mt. Marion Coal Mining Co. is preparing to install a modern mining plant at its coal mines. The machinery has been ordered.

Temple—Hardware Company.—Incorporated: Temple Hardware Co., with \$5000 capital, by Jess Baker, D. O. Baker of Granbury, Texas, and T. J. Hunt of Temple.

#### VIRGINIA.

Fredericksburg—Copper Mines.—Carter Copper Co. is proceeding with developments at its copper mines, and is now installing equipment of mining machinery.

Fredericksburg—Gold Mine.—It is reported Professor James is developing a gold mine in Fauquier county.

Fredericksburg—Copper Mines.—Fauquier Copper Co. is installing engines, boilers, drills and other equipment to facilitate the development of its copper properties.

Lynchburg—Steam Bakery.—Virginia Steam Baking Co. will remodel its buildings and plant, damaged by fire recently. It is said \$5000 will be expended.

Lynchburg—Manganese Mines.—The dispatch referred to last week was in part correct. The facts are that M. J. Dain, 308 Frick Building, Pittsburgh, Pa.; George B. Collins of New York, George F. McDonald of Pittsburgh, Henry Derner and D. W. Meyers of Lynchburg have purchased 453 acres of land near Lynchburg, and will at once develop manganese mines.

Newport News—Canning Plant.—E. E. Harris will establish a plant for canning farm and water products. About \$2000 will be expended for initial plant.

Newport News—Cannery.—E. E. Harris will establish a cannery.

Newport News—Shoe Factory.—Incorporated: Eagle Shoe Co. was chartered, with V. M. Fleming, president; Elias Peyser, vice-president; A. D. Tapscott, secretary; George A. Schmelz, treasurer, and capital \$100,000. Company will own and operate factory lately reported to be established.

Norfolk—Shipyard, Machine Shop, etc.—Chas. J. Colonna, mentioned last week as having purchased the Graves Marine Railway and Shipyard, is of Berkeley, Va. He operates several other plants of a similar character, and will add a machine, boiler and blacksmith shop to his new acquisition. Details have not been decided.

Norfolk—Cotton Mill.—Chartered: Norfolk Yarn Mills, capital stock \$40,000, and privilege of increasing to \$100,000, with Barton Myers, president; Robert M. Hughes, vice-president, and C. Brooks Johnston, secretary. Company will install yarn equipment in former knitting mill.

Norfolk—Bridge.—It is proposed to construct a bridge to cost about \$5000, and plans have been prepared and discussed. "Norfolk County Supervisors" can give information.

Norfolk—Canopy Works.—Norfolk Canopy Co. has been incorporated, with capital stock of \$12,500, to manufacture curtains, nettings, etc.; B. F. Childress, president; H. G. Barbee, vice-president, and C. D. Brumley, secretary.

Petersburg—Silk-dyeing Plant.—Hinton & Werres are installing equipment for dyeing silk goods. The buildings are located adjacent to water-power.

Portsmouth—Coal Deposits.—It is reported that coal deposits have been discovered on property controlled by L. W. Whatley, and that drilling will be begun at once.

Roanoke—Iron Furnace.—Chartered: West End Iron Furnace Co., with capital stock of \$500,000, to operate the plant formerly operated by Virginia Iron, Coal & Coke Co., but recently sold; president, H. T. Deekert, Philadelphia, Pa.; secretary and treasurer, Donald McLeod, Rutledge, Pa. The directors are T. D. Richardson, Philadelphia; J. F. Sener, Lancaster, Pa.; R. G. Stewart, Philadelphia; Donald McLeod, Rutledge, Pa., and C. C. Norris, Philadelphia.

Winchester—Telephone System.—It is proposed to organize company to establish telephone system. H. H. Baker is said to be interested.

#### WEST VIRGINIA.

Charleston—Mine Car Works.—Kanawha Mine Car Co., recently incorporated by local capitalists, has begun erection of plant for manufacturing mine cars. All contracts have been let. Foundry building will be of brick, 40x70 feet, and frame building for machine and other shops will be 90x115 feet; daily capacity at the start, eight cars. George Henneman is engineer in charge; M. T. Davis, Jr., is president, and N. S. Fitzhugh, secretary.

Charleston—Mining Company.—Chartered: Green Gold & Silver Co. of New York, capital stock placed at \$5,000,000, by Myron M. Parker, Washington, D. C.; R. A. Lewis, R. A. Jones, G. S. Robbins of New York and W. C. Greene of Brisbane, Ariz.

Charleston—Woodworking Plant.—Chartered: W. A. Gill Manufacturing Co., for the manufacture of carvings, interior decorations of wood and all furniture and other products of wood. The capital stock is \$25,000; incorporators, W. A. Gill, W. O. Daum, Frank Cox, J. F. Clark and Leo Loeb.

Clarksburg—Home Furnishing.—Chartered: Home Furnishing Co., with a capital stock of \$25,000, by S. M. Casterline, Lucius Hoge, Jr., H. L. Campbell, F. M. Berry and Lucius Hoge.

Clarksburg—Coal Mines.—Webster County Coal Co. has been incorporated by Ross F. Tout, S. R. Harrison, E. R. Dison, W. H. Lewis and Frank A. Smith for the development of coal properties. Capital stock is placed at \$25,000.

Fairmont—Coal Mines.—Marion County Coal Co. has been incorporated by G. A. McLaughlin and K. Connelly of New York, R. E. Sweekey of Brooklyn, N. Y.; W. D. Clark of Englewood, N. J., and F. D. Peale of Orange, N. J., for the development of coal mines. Capital stock is placed at \$10,000.

Grafton—Flour and Feed Mill.—Exchange Lumber Co. will erect building three stories high adapted to grain, feed and hay business, and so built that feed and flouring machinery can be added when desired. Contracts will not be let for a month or so.

Keyser—Machine Shops, Roundhouse, etc. Baltimore & Ohio Railroad Co. (offices at Baltimore, Md.) has awarded contract to W. A. Liller at \$104,000 for construction of buildings required for its proposed improvements at Keyser. Structures will include 23-stall roundhouse 382x200 feet, 60x165-foot machine shop, 30x50-foot carpenter shop, oil storehouse 30x150 feet, etc. J. E. Greiner, B. & O. engineer of bridges and buildings, Mt. Royal Station, Baltimore, Md., will have charge of the improvements. C. James of Cumberland, Md., will be direct superintendent.

Mannington—Mercantile.—Chartered: The

Nelson Company, with capital stock of \$50,000, by S. M. Nelson and T. R. Cooney of Pittsburgh, Pa.; C. L. Tagin, O. A. Davis and H. H. Roberts of Mannington.

Moundsville—Coal Mines.—It is reported the Blyson Oil & Gas Co. will develop coal properties.

Shinnston—Brick Works.—Shinnston Development Co., reported incorporated last week with \$25,000 capital, will manufacture brick at present and undertake other developments later on. C. H. Higenbotham has been elected president, and Ralph C. Jarrett, secretary. No contracts have been let.

Slatersville—Glass Factory.—P. L. Wise and others will organize company to establish a glass factory.

Slatersville—Tank Works.—Slatersville Tank Manufacturing Co. has been organized, with capital stock of \$10,000, to acquire and continue T. J. Moran's tank works; this plant will be enlarged. Andy Benner is president; D. E. Thoenen, vice-president, and T. T. Birmingham, secretary.

Union—Trading Company.—Chartered: Greenbrier Trading Co., with capital stock of \$2000, by P. H. Rorer, Edwin Mann and W. C. Pollock of Bluefield, W. Va.; A. C. Houston and R. B. Brand of Union.

Wellsburg—Improvement Company.—Chartered: Brooke County Improvement Co., with a capital stock of \$15,000, by J. C. Bily and H. B. Myer of Allegheny, Pa.; F. A. McHenry, J. G. Frazer and S. M. Loudon of Pittsburgh, Pa.

Wheeling—Steam Bakery.—National Biscuit Co. has installed 35-horse-power engine and 60-horse-power engine, and will add other machinery and make improvements that will double baking capacity of its plant; increase will be made to 35,000 pounds nightly.

#### INDIAN TERRITORY.

Duncan—Water-works.—The city will issue bonds in the near future for the construction of water-works. Frank Fuqua is mayor.

Indian Territory.—Chartered: Indian Territory Illuminating Co., with \$4,000,000 capital, for the purpose of operating for minerals in the Osage Indian Reservation. The incorporators are John I. Billings, Tracy S. Buckingham, Evan J. Dudley, Thornton Parker and Kenneth K. McLaren of New York and New Jersey. More definite addresses will probably be obtainable later on.

#### OKLAHOMA TERRITORY.

Enid—Sewers and Water-works.—City has voted an issuance of \$15,000 in bonds for laying six miles of water mains; also \$25,000 for additional sewers. Address "The Mayor."

Lawton—Lead and Zinc Mines.—Craterville Lead & Zinc Co. has been incorporated, with capital stock of \$1,500,000, and O. P. M. Butler, president; C. S. Meredith, vice-president, and Frank M. Robinson, secretary. Company has secured control of the Fullbright property, and is opening lead and zinc veins. A modern plant is being installed. Address secretary.

Temple—Cotton Gin and Compress.—The erection of a cotton compress and ginning plant is contemplated. Possibly O. C. French can give information.

Temple—Water-works.—Temple Light, Water & Fuel Co., reported incorporated with \$25,000 capital last week, has some idea of constructing water-works system of a limited extent, but has made no definite decision. Other plants indicated by company title have not been considered at all as yet. Address care O. C. French, agent.

#### BURNED.

Huntington, W. Va.—Central City Foundry; loss \$15,000.

Jonesboro, Ark.—Chapman & Dewey Company's box factory; loss \$150,000.

Shepherdstown, W. Va.—W. N. Lemen's grain elevator and warehouse; loss \$5000.

#### BUILDING NOTES.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Alexandria, La.—Theater.—J. W. Alexander will form company to build \$30,000 opera-house.

Annapolis, Md.—Engine-house.—City will build engine-house, plans for which have been prepared by O. C. Gottschalk.

Annisston, Ala.—Hotel.—W. H. Zinn has let contract to the Jefferson Construction Co. for the construction of his proposed \$100,000 hotel. The structure will be four stories high in front and four in rear, 120x130 feet

in dimension. It was previously announced as to be built.

Baltimore, Md.—Home Building.—Hebrew Friendly Inn and Home Society has accepted plans and specifications for its proposed building. Structure will be 50x135 feet, of brick, stone and terra cotta, etc., to cost \$25,000. Steam heating and electric lighting will be installed. Louis Levy is the architect selected. S. L. Fisher is secretary of association.

Baltimore, Md.—Office Building.—Baldwin & Pennington, architects, have completed the detailed plans and specifications for John A. Hambleton & Co.'s proposed banking building, to be one story high, 27x158 feet, and have all modern conveniences and improvements. Lamb Bros. have the contract to build.

Baltimore, Md.—Hospital.—Johns Hopkins Hospital is again considering the erection of proposed building for surgical department, plans for which were prepared previously by George Archer, architect. As proposed, structure would be five stories high, 100x112 feet, with every modern device and equipment for general surgical work. It is reported bids will be invited soon.

Beaumont, Texas—Hotel.—Thomas Brown, reported recently as to build hotel, states he will erect only a two-story steel-frame building so constructed that it can be added to and used as hotel when desired.

Birmingham, Ala.—Warehouse.—Louis Saks has permit for rebuilding storehouse at a cost of \$3000.

Birmingham, Ala.—Church.—Bids will be opened December 9 for erection of stone church as per plans and specifications on file at office of R. H. Hunt, architect, Chattanooga, Tenn., and Room 201, Jefferson County Bank Building, Birmingham. Usual rights reserved; Geo. M. Morrow, chairman of committee.

Brookhaven, Miss.—Jail.—Lincoln county will issue \$30,000 in bonds for the purpose of obtaining funds for the construction of a jail. Address "County Clerk" for information.

Chattanooga, Tenn.—Warehouse.—Chattanooga Feed Co., mentioned last week as to build \$13,000 warehouse, has let contract to T. A. Chambers & Sons, 600 Maple street, for construction. Adams & Bearden, Chamberlain Building, are the architects. Contract includes everything but electric elevator, warehouse scales and grain trucks.

Chattanooga, Tenn.—Military Post.—For construction of buildings for military post bids have been accepted as follows: Construction—A. E. Hawthorne & Co., Nashville, \$292,378.33; Randall Bros., Atlanta, Ga., \$86,718; Hunt, Armstrong & Trimby, Chattanooga, \$45,159.50; Lookout Planing Mills, Chattanooga, \$46,800; total, \$471,055.83. Plumbing—D. S. Wilcox, Chattanooga, \$43,505; Fred Fox, Jr., Chattanooga, \$4351; total, \$47,856. Heating—Harris Algor, Camden, N. J., \$33,322.

Columbia, S. C.—Flats Building.—F. D. Kendall will build five two-story flats buildings after plans by Frank P. Milburn.

Elizabeth City, N. C.—Wharves, Piers, etc. Suffolk & Carolina Railway has purchased site for erection of wharves, piers, freight sheds, etc., and will probably expend about \$100,000. W. H. Bosley of Baltimore, Md., is president.

Elkton, Md.—Bank Building.—Northeast National Bank will erect office building.

Green Spring, Md.—Dwelling.—Redmond C. Stewart of Baltimore, Md., has awarded contract to I. S. Owings of Baltimore for erection of \$3000 dwelling near Green Spring.

Green Spring, Md.—Residence.—E. F. Burke of Orange, N. J., has let contract to I. S. Owings of Baltimore, Md., for erection of \$25,000 residence near Green Spring.

Gulfport, Miss.—Bank Building.—First National Bank has adopted plans and specifications by Thomas Sully of New Orleans, La., for the erection of its proposed office building.

Hampton, Va.—Association Building.—J. H. Brinson has received contract at \$19,797 for erection of Y. M. C. A. building.

Hot Springs, Ark.—Courthouse.—Garland county contemplates building courthouse to cost \$75,000, and O. H. Sumpter, county judge, has asked architects to submit plans and specifications.

Houston, Texas—Hotel.—Chartered: Brazos Hotel Co., capital stock \$5000, by John Finnigan, T. F. Maurin and H. H. Franks.

Houston, Texas—Warehouse.—International & Great Northern Railway has accepted plans and specifications for erection of proposed freight warehouse to cost \$75,000.

Huntsville, Ala.—School.—City has given contract to Hutchens & Murdock for erection of school to cost about \$20,000.

Jacksonville, Fla.—Armory.—County commissioners have accepted plans and specifications for erection of the proposed armory. Rutledge Holmes is the architect.

Kansas City, Mo.—Apartment-house.—Leo N. Leslie has purchased site for erection of apartment-house to cost \$40,000; will have eight apartments, with five rooms and bath each, and all other modern conveniences.

Kansas City, Mo.—Apartment-house.—W. H. Collins has taken permit for erection of apartment-house 41x130 feet, three stories high, of brick, to have steam heat, hot and cold water supply, etc., and cost \$40,000.

Kaufman, Texas—Business Buildings.—W. T. McTae has contracted with Kaufman Improvement Co. at about \$31,000 for erection of the brick business buildings reported recently.

Louisville, Ky.—Warehouse.—American Tobacco Co. has let contract for construction of its proposed tobacco warehouse; structure to be two stories high, 160x300 feet, costing \$50,000.

Louisville, Ky.—Coliseum.—Louisville Coliseum Co. will be incorporated, with capital of \$250,000 authorized, for the purpose of building a coliseum building. Address care John B. Castleman.

Louisville, Ky.—Depot.—A dispatch states that Louisville & Nashville Railway Co. has decided to construct a 10-story office building. M. H. Smith is president.

Mississippi City, Miss.—Courthouse.—The county has selected plans and specifications for its proposed \$40,000 courthouse. Andrew J. Bryan & Co. of Jackson, Miss., are the architects.

Nashville, Tenn.—Business Building.—Warren, Neely & Co., dry goods merchants, have asked for bids on erection of five-story 31x156-foot business house, approximate cost \$40,000, after plans and specifications by Thompson, Gibel & Asmus.

New Orleans, La.—Office Building.—D. H. Burnham & Co., Rookery Building, Chicago, Ill., architects for Hibernia Bank & Trust Co.'s building, as reported last week, have entire charge of construction, and should be addressed for any information desired by contractors and supply companies.

New Orleans, La.—Training School.—Association for Relief of Jewish Widows and Orphans will have plans and specifications prepared by Favrot & Livaudais for construction of \$50,000 manual training school; structure to be two stories high, 130 feet front.

New Orleans, La.—Wharf.—Bids will be opened November 18 for construction of a wharf 900 feet long at Julia street. Address Clark Steen, secretary port commissioners.

New Orleans, La.—Office Building.—Hibernia Trust & Banking Co. has awarded contracts for erection of its proposed \$600,000 office building, to be twelve stories high and have all modern improvements. D. H. Burnham & Co. of Chicago, Ill., prepared the plans and specifications. George J. Glover has contract for excavating and piling for foundation.

Poehontas, Ark.—School.—City will issue \$12,000 bonds for erection of school. For information address Ben A. Brown, clerk school board.

Roland Park, Md.—Residence.—W. H. Appold has given contract to John Cowan of Baltimore for erection of residence to cost between \$15,000 and \$20,000.

Shawnee, O. T.—Depot.—Choctaw, Rock Island & Pacific Railway Co. is reported as to build a \$15,000 depot, for which plans are ready.

Staunton, Va.—Bank Building.—The National Valley Bank has bought site for the erection of an office building.

St. Francisville, La.—Courthouse.—Bids will be opened December 3 for furnishing materials and erecting the proposed courthouse building, plans and specifications for which have been prepared by Andrew J. Bryan & Co. of Jackson, Miss., and Louisville, Ky. Plans can be seen at architect's offices, and that of clerk to police jury at St. Francisville. The "Police Jury" will open the bids. Write for further details.

St. Louis, Mo.—Hotel.—Clients of the Lincoln Trust Co., David P. Leahy, manager, will build the "Hotel Louisiana," to be six stories high, 65x114 feet, of steel, pressed brick and terra cotta, planned for 125 rooms, at a cost of \$125,000.

St. Louis, Mo.—Bank Building.—Bankers' Trust Co. has accepted plans by Theodore C. Link for remodeling its office building.

Tioga, Texas—Hotel.—Tioga Mineral Wells Co. has increased capital \$30,000, and proposes building 50 or 75-room hotel of brick and stone. B. F. Ferguson of Tishomingo, I. T., is contractor. J. E. Flanders, 354 Jackson street, Dallas, Texas, is architect.\*



Tuscaloosa, Ala.—Club Building.—I. O. Elks will erect a club building.

Washington, D. C.—School.—Rock Creek Episcopal Church, C. E. Buck, pastor, will erect school hall of stone to cost \$18,000. Plans and specifications have been prepared by Watson, Huckel & Co. of Philadelphia, Pa.

Washington, D. C.—Dwelling.—John W. Hunt will erect dwelling to cost about \$30,000, after plans and specifications being prepared by Wood, Down & Deming.

Wheeling, W. Va.—Home Building.—St. Matthew's Protestant Episcopal Church, Daniel W. Howard, pastor, will erect \$20,000 home building.

## RAILROAD CONSTRUCTION.

### Railways.

Atlanta, Ga.—The survey for the proposed new union passenger terminal in Atlanta is in progress. H. M. Steele, chief engineer of the Central of Georgia Railway, is in charge. His headquarters are at Savannah, Ga.

Baltimore, Md.—Engineers for the Baltimore & Ohio Railroad have, it is reported, completed the survey for the proposed short line from Hancock, Md., to the Pittsburg division. J. M. Graham is chief engineer, Baltimore.

Beaumont, Texas.—Construction on the Beaumont, Port Neches & Port Arthur Electric Railway, twenty-five miles long, is reported to be progressing rapidly.

Beaumont, Texas.—T. H. Ensor of Chicago is reported as saying that the money necessary to build the Beaumont, Port Neches & Port Arthur Electric Railway is in hand, and the only delay now is to secure material and machinery. H. J. Hopkins is looking after construction material.

Biloxi, Miss.—The Commercial Club is interested in a plan to build a north and south railroad from Biloxi to Butler.

Black Rock, Ark.—C. T. Burns, attorney-at-law, and Dr. J. H. Myers of Black Rock are reported as being interested in plans to build a railroad from Newport to Pocahontas, seventy-five miles, and another line from Newport to Jonesboro.

Blacksburg, Va.—The Virginia Anthracite Mining & Railway Co. of Montgomery county proposes to build a railroad ten miles long from Blacksburg to Christiansburg. It is reported that rights of way have been obtained. L. S. Randolph is president, and Guy F. Ellett, treasurer, at Blacksburg. Ingles & Simpson of Radford, Va., are reported to have the contract.

Blackstone, Va.—The preliminary survey for the Blackstone & Chase City Railway has been completed, and estimates are being prepared. Capt. T. M. McKennon is chief engineer.

Blackstone, Va.—W. G. Land is engineer in charge of the survey for the Blackstone & Southern Railway, to run from Blackstone to McKinney, on the Seaboard Air Line.

Brownwood, Texas.—It is reported that about fifteen miles of track have been laid on the St. Louis & San Francisco extension from Brownwood to Brady.

Cape Girardeau, Mo.—It is announced that the 'Frisco has purchased the St. Louis & Gulf Railroad, and will connect it with the Chicago & Eastern Illinois Railroad. C. D. Purdon is chief engineer of the St. Louis & San Francisco Railroad, St. Louis, Mo.

Clayton, Mo.—The St. Louis, Kansas City & Colorado Railroad (Rock Island system) will, it is reported, build a cut-off to shorten the line about five miles. W. E. Dauchy is chief engineer of the Rock Island system, Chicago, Ill.

Cleburne, Texas.—W. D. Myers, president of the Dallas, Cleburne & Southwestern Railway, is reported as saying that the road will be completed soon to Cleburne.

Clifton Forge, Va.—The railroad to be built to develop the Potts Valley and Dunlap iron ore properties will, it is reported, connect with the Chesapeake & Ohio Railway near the mouth of Potts creek and run up along that stream to its headwaters, and from the headwaters of Stony creek down the latter stream through Monroe county, West Virginia, and Craig county, Virginia, to connect with the Norfolk & Western Railway at or near the mouth of Stony creek. Those interested are Alex. F. Matthews of Lewisburg, W. A. MacCorkle of Charleston, John W. Thayer and Wesley Mollohan of Charleston, John H. Holt of Huntington, Steward Walker of Martinsburg, Judge T. B. Paxton of Cincinnati and Senator J. N. Camden of Parkersburg.

Cumberland, Md.—The Lonaconing, Midland & Frostburg Electric Railway Co. has accepted from the contractors that part of the line between Frostburg and Lonaconing. The road, which is to be thirty-three miles

long from Cumberland to Piedmont, W. Va., is about two-thirds completed.

Dallas, Texas.—The St. Louis & San Francisco Railroad has, it is reported, purchased six blocks of ground for terminals in Dallas, and it is reported that the line will be extended from Paris to Dallas. C. D. Purdon is chief engineer, St. Louis, Mo.

De Queen, Ark.—Mr. W. A. Prater, vice-president of the De Queen & Eastern Railway, writes to the Manufacturers' Record saying that the company has no intention of extending the road to Hot Springs, Ark., and to Paris, Texas, soon.

Durant, I. T.—The St. Louis, San Francisco & New Orleans Railroad, formerly the Arkansas & Choctaw, but now part of the 'Frisco system, has been completed as far as Bennington, I. T., fifteen miles east of Durant.

El Paso, Texas.—A meeting of general managers of trunk lines entering El Paso is reported to have been to consider plans for a union terminal.

Eureka Springs, Ark.—Mr. S. W. Lee, chief engineer of the St. Louis & North Arkansas Railroad, writes to the Manufacturers' Record regarding the report that the company will build a line from Gilbert to Little Rock. He says that the extension is not settled yet.

Fort Smith, Ark.—Col. C. C. Goodman is quoted as saying that he will probably build a 45-mile railroad into the mineral fields of Northern Arkansas.

Fort Worth, Texas.—E. E. Churchill, general manager of the Oklahoma & Eastern Southern Railway Co., which proposes to build a line from the Red river to Stephenville, is reported to be preparing to complete the line. Seventy per cent. of the grading is reported done between Nocona and Montague.

Fort Worth, Texas.—A. T. Byers is quoted as saying that he has interested Boston capitalists in a plan to build an interurban electric line in Texas.

Frankfort, Ky.—The Brownsboro Railway Co. has been incorporated to build an electric railway from Louisville to the dividing line between Jefferson and Oldham counties, fifteen miles. The company may also extend through Oldham, Henry, Trimble, Shelby, Spencer, Nelson and Bullitt counties into Indiana. The incorporators are E. D. Frazier and Mark Sands of Chicago, L. G. Fisher, Jr., and J. H. Simpson of New York, A. G. Turnpseed of Cincinnati and J. Morton Morris and Clayton B. Blakey of Louisville.

Galveston, Texas.—Concerning the report that the Gulf, Colorado & Santa Fe Railway would build an extension up the San Saba valley to Fort McKavett, Mr. C. F. W. Felt, chief engineer, informs the Manufacturers' Record that the company has not even made a survey for such an extension, nor has any been authorized.

Gibbsland, La.—It is reported that J. D. Beardsley has the contract to build the Louisiana Railroad from Oakdale via Iota, Crowley and New Iberia to New Orleans, 270 miles.

Gulfport, Miss.—Mr. Willis W. Vail, chief engineer of the Gulf & Ship Island Railway Co., writes to the Manufacturers' Record saying that he expects to start the survey next week. Continuing, he says: "It will probably leave the main line at Mendenhall and will run through or near the following places: Burnham, Bishop's Mill, Busch's Mill, Westville, Hebron and Silver Creek, a distance of about thirty miles. Later on the line will be extended to Columbia, about thirty miles farther."

Helena, Ark.—An effort is being made to organize a company for building a railroad from Helena to either Little Rock or Des Arc.

Hillsboro, Texas.—Benjamin Thompson, chief engineer of the Trinity & Brazos Valley Railway, has made a trip over the route selected for the proposed line from Cleburne via Hillsboro to Mexia, and is quoted as saying that the road will be built. He was accompanied by A. H. Hudson of Knoxville, Tenn., a stockholder in the company.

Houston, Texas.—The Manufacturers' Record is officially informed that the reports relating to reduction of grades and curves on the Houston & Texas Central Railroad are at present purely speculative.

Houston, Texas.—It is reported that engineers have located the line for the Houston, Beaumont & New Orleans extension of the International & Great Northern Railroad from Houston to Beaumont.

Huntington, W. Va.—A survey has been completed for the line of the Tri-State Terminal Railway Co. from Huntington via Catlettsburg and Ashland, Ky., to Ironton, Ohio.

Huntington, W. Va.—The Chesapeake & Ohio Railway is reported to be purchasing

land for additional terminal tracks in Huntington. F. I. Cabell is engineer of construction, Richmond, Va.

Jackson, Miss.—Charles E. Gibbs of Kansas City has written to Secretary of State Power concerning a proposed railroad from Kansas City, Mo., via Springfield, Mo., Yellville and Little Rock, Ark., Natchez, Miss., and Baton Rouge, La., to New Orleans.

Jennings, La.—The Commercial League is considering a proposition to build a railroad to Jennings. Wellman Bradford and D. R. January are reported to be interested.

Johnson City, Tenn.—The South & West Railway has, it is reported, been completed to near Bakersfield, N. C. When finished it will reach Lincoln, N. C.

Kansas City, Mo.—The Arkansas, Springfield & Northwestern Railroad Co. has a surveying party now at Springfield, Mo., the Manufacturers' Record is officially informed. They will begin work immediately, and construction is to commence as soon as the line is located. The officers of the company are as follows: Henry C. Solomon, president; B. F. Wolfman, vice-president; C. H. Varnon, secretary and treasurer. The directors are Henry C. Solomon, C. H. Varnon, B. F. Wolfman, C. R. Frank and J. B. Delaney.

Kinston, N. C.—The Kinston & Carolina Railroad Co. has been chartered to build a line through Lenoir, Duplin and Pender counties to a point on the Wilmington & Weldon Railroad, about sixty miles. The directors are J. W. Lynch, W. C. Swift, C. F. Harvey, H. Tull, J. M. Parrott of Kinston and P. P. Lahans of New York. Others interested are J. J. Stevenson, H. C. V. Peebles, Geo. L. Hodges, J. E. Hood, Adolph Einstein, H. E. Shaw, John F. Hostetter, G. W. Sumsell, H. Qumerly, M. H. Allen, W. A. Mitchell, Dan Qumerly, W. S. Herbert, W. T. Parrott, G. E. Komegay, Plato Collins, C. B. Woodley and J. H. Ellis, all of Kinston; L. V. Morrill, Snow Hill; J. H. Burton, C. D. Knapp, New York; J. L. Chapman, Scranton, Pa.

Lincoln, Mo.—The contractors on the Iowa & St. Louis Railroad will, it is reported, push construction work all winter unless heavy snows prevent. William Kenedick, principal contractor, and J. P. Gleason, civil engineer, are to remove their offices soon from Centerville, Iowa, to Macon.

Little Rock, Ark.—P. C. Dooley and W. P. Field have filed a petition for a trolley line from Little Rock to Toltec, Keo and England, Lonoke county.

Llano, Texas.—Ben Hughes is reported to have made a location survey between Llano and Lampasas for an extension of the Gulf, Colorado & Santa Fe Railway, of which C. F. W. Felt is chief engineer, Galveston, Texas.

Maysville, Ky.—It is reported that arrangements have been made to build a railroad from Jackson twenty-five miles southeast to lands owned by the Lost Creek Coal Co.

Memphis, Tenn.—The Chicago, Rock Island & Pacific Railway has, it is reported, completed the survey for a connecting line between the Choctaw, Oklahoma & Gulf and the St. Louis, Kansas City & Colorado Railroad, which will give it a freight line between Memphis and St. Louis. W. E. Dauchy is chief engineer, Chicago, Ill.

Memphis, Tenn.—Construction work has begun on the new belt line of the Union Railway. H. E. Fleming is president and general manager.

Mexico, Mex.—It is reported that the Inter-oceanic Railway will be extended from Puebla to Acapulco, on the Pacific coast, 200 miles. W. T. Ingram is chief engineer, Mexico, Mex.

Mobile, Ala.—President Merrill of the Mobile, Jackson & Kansas City Railroad is quoted as saying that contracts have been let for construction north from Hattiesburg, Miss., to Newton, and that surveys are being made northward from there.

Monterey, Mexico.—Engineers are reported to be surveying for construction of a railroad between Tampico and Saltillo, backed by an English syndicate.

Mt. Pleasant, Tenn.—It is reported that the surveys for the Mt. Pleasant & Nashville Electric Railway have been completed, and that the engineers are now preparing plans for contracts to be let at once.

Nashville, Tenn.—Mr. Hunter McDonald, chief engineer, informs the Manufacturers' Record that there is nothing in the report that the Nashville, Chattanooga & St. Louis Railroad will extend its line from Lax, Ala., to Decatur.

Ocala, Ga.—The Ferguson Contracting Co. of New York, represented by F. F. Visscher, is reported to have begun work on the Brunswick & Birmingham extension from Wrays to Ocala.

Oklahoma City, Okla.—The Oklahoma Traction Co. will, it is reported, build an electric line from Oklahoma City to Guthrie, thirty-five miles. A preliminary survey is being made.

Opelika, Ala.—It is reported that construction work has begun on the Opelika & Auburn Electric Railway, of which Henry D. Capers is secretary.

Paris, Texas.—The promoters of the Bonham & New Orleans Railway are reported to be considering the building of a road from Bonham to Paris, and thence to Willsboro.

Parkersburg, W. Va.—Mr. Samuel D. Brady, chief engineer of the Little Kanawha Railroad Co., informs the Manufacturers' Record that contracts will be awarded for the construction of line from Sandy Bend to Burns-ville about November 14.

Pensacola, Fla.—It is reported that the Illinois Central Railroad will build an extension to Pensacola. D. Sloan is chief engineer of construction, Chicago.

Pensacola, Fla.—It is again reported that the Central of Georgia Railway will build an extension to Pensacola from Florida, Ala. H. M. Steele is chief engineer, Savannah, Ga.

Rowells, Ala.—J. T. Pruden has the contract upon part of the improvement of the East & West Railroad of the Seaboard system.

San Angelo, Texas.—T. Y. Walsh, superintendent of construction for the Kansas City, Mexico & Orient Railway, is reported to be arranging to begin grading northward from San Angelo, Nicholas Krus having the contract for twenty-five miles. Construction will be pushed northward to Sweetwater.

Shreveport, La.—It is reported that the contract will soon be let for a branch of the Shreveport & Red River Valley Railway between Colfax and Winnfield. A. J. Hayes of Apple & Hayes, contractors on the line from Mansura to Water Valley, has made an inspection of the proposed extension. P. L. Dougherty is chief engineer, Shreveport, La.

South McAlester, I. T.—Donald G. Grant of Faribault, Minn., has received the contract for grading the electric line of the Indian Territory Traction Co. from South McAlester to Haileyville.

Stamford, Texas.—Grading has been completed on fifteen miles of line of the Texas-Mexican Railroad, which is to extend from Haskell via Stamford and Anson to Abilene, 100 miles. E. H. Tinsley is chief engineer, Stamford.

St. Louis, Mo.—Mr. B. L. Winchell, vice-president and general manager of the St. Louis & San Francisco Railroad, writes to the Manufacturers' Record as follows: "There is no truth whatever in the report that we have arranged to build a line from Birmingham, Ala., to Macon, Ga., or to any other point in that vicinity."

St. Louis, Mo.—It is reported from Mattoon, Ill., that construction work has begun on the second track of the Big Four, which is to connect the Chicago & Eastern Illinois Railroad with the St. Louis & San Francisco Railroad at St. Louis.

St. Louis, Mo.—The Terminal Railroad Association will, it is understood, soon let contracts for extending its terminals. W. S. McChesney, Jr., is general manager.

Temple, Texas.—The Lampasas extension of the Houston & Texas Central Railroad has been completed and the first train run.

Tuscumbia, Ala.—Engineers are making a survey near Tuscumbia for a railroad, one line running towards Cullman and the other towards Aberdeen. Captain McCloy has charge of the party.

Waco, Texas.—General Manager Hamilton of the Texas Central Railroad is quoted as denying the report that it has been sold.

Webb City, Mo.—It is reported that orders have been placed for material to begin construction on the extension of the Southwest Missouri Electric Railway to Carl Junction.

Wellsburg, W. Va.—The Wellsburg & State Line Railroad Co. will, it is reported, build a line seven and one-half miles long from Wellsburg to Bethany. It is backed by the Wellsburg Coal Co., of which Joseph A. West is president; W. Glyde Wilkins, vice-president; L. F. Darrall, secretary, and C. C. Law, treasurer. Other directors are R. C. McLean and Dr. W. S. Huselton.

Whitehouse, Ky.—The Chesapeake & Ohio Railway is reported to have begun laying track at Whitehouse on its Big Sandy extension.

### Street Railways.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co. will, it is reported, build a new track from Birmingham to Bessemer by February 1. An extension of a mile and a-half in length is also projected on the south side.

Charlotte, N. C.—It is reported that the Four Cs Company will build a street-railway extension.

Dallas, Texas.—C. S. Wyman, general superintendent of the Stone & Webster lines; A. K. Bonta and others are reported to have decided upon plans for extensive betterments to the Dallas street railways, including extensions and the relaying of track with heavier rails. The Metropolitan Street Railway Co. has been incorporated, with \$4,500,000 capital, by C. E. Tripp, A. K. Bonta, Henry C. Coke, C. F. Byrne and John Frost, to construct and maintain electric lines in Texas.

Gainesville, Ga.—Tracklaying is under way for the new electric street railway. J. A. Kidd has charge of construction.

Greensboro, N. C.—It is reported that the street railway will build an extension one and one-half miles long from Proximity to White Oak Mills. H. S. Kemp will have charge of the construction.

Kansas City, Mo.—The Metropolitan Street Railway Co. has been granted an extension of a year to extend the line on Nicholson avenue.

New Decatur, Ala.—It is stated that an extension of time has been granted to J. T. Crass and associates of Chattanooga on their electric street railway franchise.

### Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Agricultural Machinery.—Easley Hardware Co., Easley, S. C., wants catalogues and prices on pea hullers.

American Manufacturers.—B. Marin Espinosa, Astoria 5, Bilbao, Spain, wants to correspond with American manufacturers of machinery with a view to representation.

American Manufacturers.—Ed. Taupin, 5 Rue de la Fidelite, Paris, France, wants to correspond with American manufacturers of cooking and kitchen utensils, tinned and enameled ironware, small tools, chains, iron hardware, new inventions, perforated chair seats, etc.

Boiler.—E. Keeler Company, Williamsport, Pa., wants 15-horse-power portable boiler on wheels, second-hand.

Boiler and Engine.—See "Mining Equipment."

Boiler and Engine.—Cory-Lauterman Asphalt Co., 206 Walnut street, St. Louis, Mo., will need 50-horse-power engine and 100-horse-power boiler; two 50-horse-power boilers would do.

Boiler and Engine.—John W. Petty, superintendent, High Point, N. C., wants to buy Corliss engine 14x30, and return tubular boiler 72x16; also feed-water heaters and pump.

Boiler and Engine.—D. A. Burwell, Townsville, N. C., is in the market for 30-horse-power engine and boiler, second-hand.

Boilers and Engine.—Morehead Cotton Mill, Spray, N. C., W. D. Neal, superintendent, wants 150 to 200-horse-power engine and boilers, second-hand.

Boilers and Engine.—C. E. Riddle, Fernandina, Fla., will soon be in market for 100 to 125-horse-power boilers and engine. See "Lumber Plant" wants.

Boilers and Engines.—Stamm, Schelle & Co., Rayne, La., want the agency for portable and stationary engines and locomotive boilers; also for duplex and centrifugal pumps.

Box Factory.—Perkinson Truck Growers' Association, J. E. Forehand, secretary, Perkinson, Miss., wants box and crate factory equipment.

Broom Machinery.—W. N. Robinson, Tishomingo, I. T., wants prices on broom machinery.

Building Materials.—George Moore & Sons, Nashville, Tenn., will need iron work, cut stone and granite, fireproofing, etc., for \$100,000 building.

Building Materials, etc.—W. A. Liller, 308 Davis street, Keyser, W. Va., will need struc-

tural iron, cement, 4000 cubic feet of granite for coping, etc., sash, doors, yellow-pine frame lumber, terra cotta, etc., cast-iron sewer pipes, etc.

Building Materials, etc.—Tioga Mineral Wells Co., Tioga, Texas, will probably want engines, boilers, dynamos, laundry plant, elevators, steam heat, lumber, brick, stone, tiling, etc., for 50 or 75-room hotel.

Cannery.—Perkinson Truck Growers' Association, J. E. Forehand, secretary, Perkinson, Miss., wants cannery equipment.

Chair Machinery.—See "Woodworking Machinery."

Coffee Roasters.—W. W. Richardson, Hampton, Va., wants coffee roasters of 20 to 40-pound capacity.

Cotton Machinery.—Meyer Markowitz, 82 Delancy street, New York city, wants to correspond with makers of machinery for manufacturing cotton batting.

Cotton Mill.—Catoosa Manufacturing Co., W. N. Brown, superintendent, Ringgold, Ga., will need full equipment for \$100,000 plant.

Crusher.—See "Road-building Machinery."

Dry-kiln.—See "Lumber Plant" wants.

Electrical Machinery.—See "Foundry."

Electrical Machinery.—Lynchburg Builders' Exchange, Lynchburg, Va., wants catalogues and prices on dynamos and other electrical equipment.

Electric-light Machinery.—Jones Pants Manufacturing Co., Waycross, Ga., wants to buy second-hand dynamo to make fifty 16-candle-power lights.

Electric-light Plant.—Fortuna Land & Mining Co., John A. Rodgers, secretary, 502 Broadway, Kansas City, Mo., will probably want electric-light and power plant.

Electric-light Plant.—Gresham Planing Mill Co., Griffin, Ga., is in the market for electric-light equipment for mill.

Electric-light Plant.—See "Building Materials."

Electric-light Plant.—Union Bleaching & Finishing Co., Greenville, S. C., has not contracted for electric-lighting equipment and wiring. See "Mill Supplies."

Electric Machinery.—Robert L. Moore, Box 29, Salem, Va., wants to buy electric motor of one-quarter to one horse-power.

Elevators.—See "Warehousing Equipment."

Engine.—People's Live-Stock Co., Harrisburg, Ark., will need one-and-one-half-horse-power gasoline engine with pump attachments.

Evaporator.—L. E. Pelter, 207 Winne Building, Wichita, Kan., wants to buy evaporator and grinder for manufacturing horseradish.

Fire-protection Equipment.—See "Mill Supplies."

Foundries.—Fender Vending Machine Co., 16 Market street, San Antonio, Texas, wants to contract for the manufacture of its patented machine in lots of 100 and over.

Foundry.—Gulfport Foundry and Machine Works, E. M. Lake, superintendent in charge, Gulfport, Miss., will need 25-horse-power dynamo, lathes, etc., for foundry and machine shop.

Furniture Upholstery, etc.—S. Goldmann, Stadtbahn 1, Berlin, Germany, is prepared to correspond with American manufacturers of stamped velveteens, silk materials, etc., for decorating and finishing furniture.

Glass Plants.—A. C. Glancy, 306 Bond Building, Washington, D. C., wants to correspond with parties having smelting furnaces and glass plants for sale.

Grinding Machine.—See "Evaporator."

Hardware.—Wight Manufacturing Co., Chattanooga, Tenn., wants quotations on copper wire links and staples used in making spring beds.

Heating Plant.—See "Building Materials."

Horseradish Machinery.—See "Evaporator."

Irrigation Plant.—Fortuna Land & Mining Co., John A. Rodgers, secretary, 502 Broadway, Kansas City, Mo., will probably want electric-power plant for lighting and pumping plant to drain lands.

Laundry Equipment.—Ed. T. Cochran, Canilla, Ga., wants catalogues and estimates on steam-laundry equipment.

Laundry Plant.—See "Building Materials."

Lumber.—J. P. Little, Sumner, Fla., wants addresses of firms dealing in telegraph and telephone poles.

Lumber Plant.—Roberts Drug Co., Suffolk, Va., wants to buy lath machine, edger, planer, tongue-and-groove machine, etc.; second-hand preferred.

Lumber Plant.—C. E. Riddle, Fernandina, Fla., will soon be in the market for saw-mill of 25,000 feet capacity, including 100 to 125-horse-power engine, with boilers, rotary saw-mill, gang edger, 6x14 planer and

matcher, belting, pulleys, shafting, dry-kiln, etc.

Lumber Plant.—Gresham Planing Mill Co., Griffin, Ga., is in the market for engine, boiler, shafting, pulleys, dry-kiln, belting, electric-light equipment, double-end tenoner, stile and rail borer, dowel machine, door clamp, panel raiser, door sticker with check rail sash attachment, rip saw, planer, diagonal planer, sander and blind wiper.

Machine Tools.—See "Metal-working Machinery."

Machine Works.—See "Foundry."

Machinists.—See "Founders."

Metal-working Machinery.—Metallic Bed Co., J. C. Bollinger, secretary, Hagerstown, Md., will need equipment for metallic-bed factory.

Mill Supplies.—Union Bleaching & Finishing Co., Greenville, S. C., has not contracted for electric-lighting machinery, wiring, sprinkler system, piping, shafting, pulleys and hangers.

Mining Equipment.—Harry E. Forney, National Exchange Bank Building, Wheeling, W. Va., wants to correspond with makers of washers and screens for silica sand.

Mining Equipment.—Vulcan Coal Co., Cedar town, Ga., will need 25 to 50-horse-power vertical submerged tubular boiler, 30-horse-power hoisting engine, coal screen and tram cars.

Mining Equipment.—Blacklick Gold & Silver Mining Co., E. Merrill, treasurer, Merrill, Md., will probably want concentrating plant.

Mining Machinery.—Sagamore Coal Co., Middlesboro, Ky., will probably need in the future a power plant and electric haulage equipment.

Piping.—See "Building Materials, etc."

Printing Machinery.—Lynchburg Builders' Exchange wants catalogues and price-lists on printing machines for boxes, cases, etc.

Pulleys, Shafting, etc.—See "Lumber Plant" wants.

Pump.—See "Engine."

Pumps.—See "Boilers and Engines."

Railway Equipment.—Roberts Drug Co., Suffolk, Va., wants to buy narrow-gauge locomotive, rails and logging cars, etc.; second-hand preferred.

Railway Equipment.—James & Co., Chattanooga, Tenn., want to buy (at dealers' price) a 30 to 40-ton second-hand geared Shay locomotive.

Railway Equipment.—See "Mining Equipment."

Road-building Machinery.—Downsville & Williamsport Turnpike Co., Downsville, Md., Grafton Downs, secretary, will probably need a stone crusher.

Saws.—Thomas L. Smith, Quitman, Ga., wants prices on drag saws.

Saws.—B. C. Hall, Red Banks, N. C., wants to buy chisel-tooth saw 46 to 50-inch, 9x10 gang; second-hand will do.

Scales and Trucks.—See "Warehousing Equipment."

Sewer Construction.—Thos. C. McClellan, Athens, Ala., wants to correspond with engineers and contractors relative to cost of municipal sewer system.

Smelting Furnaces.—See "Glass Works."

Spring-bed Factory Supplies.—See "Hardware."

Steam-power Plant.—See "Boiler and Engine."

Store Fixtures.—French Market Grocery Co., Pearl and Fannin streets, Beaumont, Texas, is in the market for store fixtures and labor-saving devices for grocery and market business.

Telephone Supplies.—W. S. Adair, 385 Harwood street, Dallas, Texas, wants to correspond with makers of the inflated rubber pad, the attachment for ear piece of telephone instrument.

Telephone Supplies.—See "Lumber."

Textile Fabrics.—See "Furniture Upholstery."

Warehousing Equipment.—Chattanooga Feed Co., Chattanooga, Tenn., has yet to buy electric elevator, warehouse scales and grain trucks for \$13,000 warehouse.

Washers and Screens.—See "Mining Equipment."

Well-drilling Equipment.—Summitville Oil, Gas & Mining Co., Summitville, Tenn., will need oil-rig equipment, except derrick.

Woodworking Machinery.—See "Saws."

Woodworking Machinery.—See "Box Factory."

Woodworking Machinery.—See "Lumber Plant" wants.

Woodworking Machinery.—Chilhowie Lumber Co., Chilhowie, Va., is in the market for

lumber trimmer to cut six to twenty feet long; second-hand will do.

Woodworking Machinery.—D. A. Burwell, Townsville, N. C., is in the market for chair machinery.

Woodworking Machinery.—Thomas Sherk, Andrews, N. C., wants prices and information on machinery for manufacturing wood pipes, wagon materials, cotton-mill supplies, picker-sticks, etc.

### TRADE NOTES.

Removal.—Collier & Brown, consulting engineers, Atlanta, Ga., have removed from 1001-1002 English-American Building to 917-18-19 Empire Building.

Large Engine.—For delivery at Moultrie, Ga., the Savannah Locomotive Works & Supply Co., Savannah, Ga., has sold to the Georgia Northern Railway Co. one 17x24 10-wheel-type locomotive.

Change of Address.—The Ridgmont Cement Manufacturing Co. has removed its office to the address of the present telegraphic and freight office, Ironville, Va. Ridgmont cements are well and favorably known.

An Award.—At the Dusseldorf Exhibition, which has just terminated, an award of merit, a gold medal, was awarded the "Hunt" conveyor. This conveyor is manufactured by the C. W. Hunt Company, West New Brighton, N. Y.

Rail of Various Weights.—Walter A. Zellerbach Supply Co., manufacturer and dealer in railway, mill and factory supplies, 408 North Fourth street, St. Louis, announces that it has in its St. Louis stock rails for immediate delivery weighing from eight to eighty-five pounds per yard.

Notice to Contractors.—Until December 2 bids on the contract to furnish the new courthouse of Copiah county, Mississippi, with steel furniture will be received, if accompanied with a certified check for \$200. For detailed information, address John B. Mayes, clerk of the chancery court, Hazlehurst, Miss.

Western Visit.—Messrs. Kern Dodge and Charles Day of the firm of Dodge & Day, New York, modernizing engineers, have just returned from an extensive trip through the Middle West, where they visited many of the principal machine shops and foundries, gathering data on shop efficiency and critically comparing factory methods.

Good Contracts.—The contract for the large filtering plant to supply the Hotel Jernyn, Scranton, Pa., with water has been awarded to the New York Continental Jewell Filtration Co., New York. Quite a number of office buildings, apartment-houses and hotels now being erected are having filters of this make specified by their architects.

Sale of Electrical Fixtures.—The Electric Supply Co., Savannah, Ga., has been awarded the contract for the combination gas and electric fixtures for Florida's remodeled capitol. The contract calls for \$2000 worth of fixtures, and was won in sharp competition. This same firm has just completed the work of installing fixtures in the State capitol building in Columbia, S. C.

At the Hicks Works.—The Santa Fe Central Railway has ordered from F. M. Hicks the following locomotives and cars to be rebuilt at the Hicks Locomotive and Car Works, 277-289 Dearborn street, Chicago: One 18x24 mogul locomotive and two 19x24 mogul locomotives, fifteen flat cars, twenty-five box cars, fifteen gondolas, four coaches and one private car.

Painting Machines Sold.—F. E. Hook, Hudson, Mich., has recently made extensive sales of his "Best" pneumatic coating machines and "Stay There" weather and fire proof paint. He sold good orders of paint and the machines for applying it to the Keystone Lumber Co., Jamieson City, Pa.; the Union Tanning Co., Powell, Pa., and to the Union Tanning Co., Glossburg, Pa.

Hosiery Mill for Sale.—For want of adequate working capital, the Birmingham Hosiery Mill, Birmingham, Ala., will sell its complete hosiery mill, with a capacity of 250 dozen pair ladies' hose and half-hose per day. This plant is well built on modern mill construction lines, on a desirable site, has artesian water and controls the cottages of its employees. The mill also owns its own electric-light plant.

Bond Sale.—One hundred and fifty thousand dollars' worth of 50-year bonds, optional to payment every five years after fifteen, have been issued by the city of Wagner, I.



T., on its water-works. These are \$1000 5 per cent. bonds, payable semi-annually, the principal guaranteed by a responsible trust company, and the interest by the city. C. A. Rees, Fayetteville, Ark., will supply additional information.

**Valuable Opportunity.**—Because of other and conflicting business interests, W. B. care Manufacturers' Record, is willing to dispose of a very valuable furniture and stove business in a live Virginia town of 28,000 inhabitants. This business amounted to \$35,000 yearly, and during its three years' life has averaged an annual profit of \$6000. The owner will sell at once for \$18,000 cash, and offers to buy it back at that figure inside of three years.

**Heating Apparatus Sold.**—The American Blower Co., Detroit, Mich., has recently taken a number of large orders for heating apparatus, including plants for the Lackawanna Steel Co.'s roll shop at Buffalo, N. Y.; the Pittsburg Valve Foundry Construction Co., Pittsburg, Pa.; Fox Typewriter Co., Grand Rapids, Mich., and the National Malleable Castings Co. at Sharon, Pa.; also the entire drying apparatus for the new starch factory of Piel Bros., Indianapolis, Ind.

**Advertising Novelty.**—The Bourne-Fuller Company, Cleveland, Ohio, well-known maker of plates for tanks, boilers, bridges, ships, etc., and handler of iron, steel and pig-iron, sends the Manufacturers' Record a very neat and practical little paper cutter, on the handle of which are the words, "Compliments of Bourne-Fuller Company, Iron, steel and pig-iron." This should be a lasting advertisement, because of the good finish which the little knife has and its utility.

**Ball Engines.**—The Osborn Water & Light Co., Osborn, Ohio, recently purchased an additional unit.

The Vose Piano Co., Boston, Mass., recently purchased a direct-connected unit, consisting of a Westinghouse generator direct-connected to a Ball engine.

The Grand Crossing Tack Co., Chicago, recently put in operation a direct-connected outfit, consisting of a Crocker-Wheeler generator direct-connected to a 175-horse-power Ball engine. These engines were built by the Ball Engine Co., Erie, Pa.

**Agent for Middle West.**—F. G. Street, 36 La Salle street, Chicago, has been appointed sole agent for Northern Illinois, Indiana, Michigan, Minnesota, Wisconsin, North and South Dakota and Kansas for the Scaife and We-Fu-Go water-softening and purifying systems, manufactured by Wm. B. Scaife & Sons Co., Pittsburg, Pa. Mr. Street is known throughout this territory in manufacturing and engineering circles, has given the subject of water purification considerable attention, and is in a position to furnish complete information on this subject.

**For Pure Water.**—The Pittsburg Filter Manufacturing Co., Empire Building, Pittsburg, has had an unusually busy year, installing water-works, filters and water-softening plants. Besides constructing the 2,500,000-gallon water-softening plant for the Tennessee Coal, Iron & Railway Co., Birmingham, Ala., plants have been installed aggregating 7,500,000 gallons, and other plants with a total horse-power of 19,500. These plants were installed all over the country for all kinds of establishments, and indicate the extensiveness of this firm's business operations.

**Appointed Representative.**—Mr. W. H. Stocks, who has been master mechanic of the Chicago, Rock Island & Pacific Railroad for several years, has resigned from that company to accept an appointment as representative of the Gold Car Heating & Lighting Co. of New York, Chicago and London. Mr. Stocks has been associated with the mechanical departments of Minneapolis & St. Louis Railway, Great Northern Railway and Chicago, Rock Island & Pacific Railway for twenty-five years, during which time he has held the position of foreman, general foreman and master mechanic of the roads mentioned.

**Charleston Commercial Club.**—This new club organization has purchased the desirable site of Nos. 93, 95, 97 and 99 Meeting street, Charleston, S. C., opposite Washington Park, and will erect thereon a modern clubhouse complete in every respect. Fifty thousand dollars will be expended for the site, building and furnishing, which amount has been raised for that purpose. The club starts off with 500 members, and will occupy the second and third floors of the building. The ground floor will be occupied by the Chamber of Commerce, Merchants' Exchange and Young Men's Business League. The upper (fourth) floor will be a large hall with all accessories for a summer roof garden.

**Renold Silent Chain.**—Recent sales of Renold silent chain by the Link-Belt Engineering Co., Nictown, Phila., include nine line shaft drives from motors for the new works of the Patton Paint Co., Newark, N. J.; eight drives from motors to line shafts and elevators in the new model plant which the Crompton & Knowles Loom Works is erecting in Philadelphia, and eight 60-horse-power drives for induced-draft blowers in the new Waterside Station of the New York Edison Company. There are now sixty-one Renold silent chains in use in the new building of R. H. Macy & Co., varying in capacity from one to ninety horse-power.

**Delaware Corporations.**—A copy of an address, entitled "Delaware Corporations," delivered by Josiah Marvel, Esq., president of the Delaware Charter Guarantee & Trust Co., Wilmington, before the students of the department of finance and economy of the University of Pennsylvania on the 14th of last May, has been received. This address is a strong one, of more than general interest, and of educational value of the highest sort. The Delaware Charter Guarantee & Trust Co. co-operates with members of the bar and renders them all possible assistance in securing for their clients the corporate benefits obtainable under Delaware law. To any member of the bar this firm furnishes copies of the law, blank forms and full information free upon request.

**Fine Exhibit.**—A photograph has been received from the Dowman-Dodder Manufacturing Co., 20-22 Trinity avenue, Atlanta, Ga., showing its interesting exhibit at the Southern Interstate Fair, held in Atlanta from the 8th till the 25th of October. This consisted of cornices, crests, skylights, finials, Dixie ventilators, H. Collier Smith's patent metal window frames and sashes, stamped zinc ornamental work, long seamless eave trough and conductor pipe, and also the Kelsey warm-air generator, manufactured by the Kelsey Heating Co., Syracuse, N. Y., and the Fox furnace, manufactured by the Fox Furnace Co., Cleveland, Ohio, whose representative for Atlanta and adjacent territory this firm is. The exhibit was a creditable one, and the showing made excellent.

**Patent Windlass.**—If any doubt had ever existed as to the reliability and efficiency of the Providence patent elastic capstan windlass, manufactured by the American Ship Windlass Co., Providence, R. I., this will be removed by the letter that this firm has just received from M. W. Blake, master of the schooner Perry Setzer, Bridgeport, Conn., who writes in praise of the warmest kind of the windlass which he recently had occasion to test, and that severely. It eased all strain and did its work in every way as it should. Only seamen can appreciate the terrible strain ship and cable undergo while at anchor in rough weather or during rough tows. This windlass automatically relieves strain and takes up the slack in the cable, preventing the jerking and straining to which the equipment is otherwise subjected.

**Roney Stokers.**—The smoke nuisance is receiving much attention at the hands of the city authorities of Providence, R. I., who are endeavoring to obtain necessary legislation for its abatement. It is a matter of interest that the three largest industrial concerns in the city have voluntarily encouraged this movement by offering to install apparatus in their power stations which will prevent the black smoke. With this purpose in view the Rhode Island & Suburban Railway has contracted for a large equipment of Roney mechanical stokers for its new boiler plant. The plant will have an ultimate boiler capacity of 6300 horse-power. The above stokers will be used throughout. Another large concern, the Narragansett Electric Lighting Co., is also installing a complete equipment of Roney stokers, comprising twelve stokers of the quadruplex type operating under Babcock & Wilcox boilers of 4500 horse-power capacity. A third industrial plant employing these stokers is the Brown & Sharpe Manufacturing Co., where Roney stokers under two batteries of Babcock & Wilcox boilers have been in use for some time with excellent results. Westinghouse, Church, Kerr & Co., Pittsburg, furnish the Roney stokers.

#### TRADE LITERATURE.

**Valves.**—The Ludlow Valve Manufacturing Co., foot of Adams street, Troy, N. Y., is issuing a four-page folder, nicely illustrated, describing the Ludlow fire hydrant with balanced valve. This is described as a modern fire-fighter. This firm has for long successfully manufactured valves of every description.

**Atlantic Transport Line.**—Rate of passage and information for passengers is contained in a small folder, cancelling all previous prices, which the Atlantic Transport Co., No.

1 Broadway, New York, is issuing with reference to its fast line of steamers plying direct between New York and the city of London.

**Invitation.**—An odd little invitation to a standing luncheon from 2 till 5 has been received from Geo. W. Wescott, who thus celebrated the opening of the new offices of his firm, the Power Installation Co., suite 37, 38, 39 and 40 Exchange Building, Buffalo, on November 1. The invitation is worded in an original manner, and suggests the good time which the diners more than probably enjoyed.

**For Molders.**—The October issue of the Obermayer Bulletin, published monthly in the interest of molders by the S. Obermayer Company, 1318 Majestic Building, Detroit, has been received. This is a complete little magazine, and of value to molders, its foundry information being written by men well fitted to help the molders throughout the country. The leading articles in this issue will be found of practical interest.

**Air Compressors.**—The Rand Drill Co., 128 Broadway, New York, issues attractive catalogues of good machinery. The one just received from this firm, descriptive of air compressors, is not less good than those which have preceded. Good paper, clear type, fine illustrations and convincing reading matter constitute the sum total of Rand Drill Co. catalogues. They will be mailed free upon application to parties desiring them.

**Gas Heater.**—A booklet descriptive of the Nason steam glue heater and the gas heater in detail is being distributed by the manufacturer of this excellent outfit, the Nason Manufacturing Co., 71 Fulton street, New York. This heater is an especial arrangement for heating glue and paste by gas heat. It is made in varying sizes and styles for floor or bench practice, and is a very valuable shop equipment, especially where steam for heating glue is not available.

**Mailing Card.**—The Philip Carey Manufacturing Co., Lockland, Ohio, is mailing a card soliciting orders and mentioning some of the purposes for which Carey's 85 per cent. magnesite and standard asbestos coverings are used. Attention is called to the fact that the United States government uses this covering, and that it is extensively used for locomotive lagging, for steam pipes and boilers, for insulating all classes of hot and cold surfaces, for low-pressure steam and hot-water pipes, for ammonia and brine pipes, and, in fact, a covering for special as well as all ordinary purposes.

**Very Attractive Catalogue.**—The cover design of the catalogue received from the Safety Car Heating & Lighting Co., 160 Broadway, New York, is very beautiful; it is a work of art; the pages are not less attractive, containing, as each one does, a handsomely mounted half-tone. This book has been sent out in behalf of the Plutich system of car and buoy lighting. The reading matter is fully as original and equally as attractive as the illustrations. This is an American modification and improvement on an invention perfected in Germany. It has extended all over the world, and has been adopted by many governments. The light is given off from gas, which, in turn, is made from oil; 118,000 of these equipments are in use.

#### American Cotton Oil Report.

The annual report of the American Cotton Oil Co. for the fiscal year ended August 31 shows profits for the year \$2,373,266.48; net profits, after payment of \$135,000 interest on debenture bonds, \$2,238,266.48, out of which are paid dividends on preferred stock at 6 per cent. per annum, \$611,916, and dividends as follows on common stock, December 1, 1902, 4 per cent., \$809,484; June 1, 1903, 2 per cent., \$404,742, or a total of \$1,826,142, leaving a balance carried to profit and loss of \$412,064.48. The permanent investment account has been charged with \$729,884.32 for additions to the property, and it has been credited with sales amounting to \$227,241.42, leaving a net increase in the account of \$502,642.90. During the year \$419,361.46 were expended for maintenance and charged to operating expenses. The net working capital of the company at the end of the fiscal year was \$4,648,942.82, of which \$1,245,447.90 was cash in banks and \$3,403,494.92 was bills and accounts receivable, marketable products and supplies.

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

#### Review of the Baltimore Market.

Office Manufacturers' Record,

Baltimore, Md., November 12.

Dullness has prevailed in the Baltimore stock market during the past week, although there was a little evidence of activity toward the end of the period. The primary cause of this quietude was the bearish influences of the New York market, but they were aided by a disposition to hold aloof, as was to have been expected after a season of speculation. Excepting the decline in Seaboard's, the market was really without feature, but there was a little more movement in the shares of the trust and bonding companies, and, considering the general indisposition to trade, a fair demand for investment securities, which were only slightly affected by the depressing tendencies of the speculative list.

In the trading Seaboard common started at 29½, advanced to 29½, declined to 27½, rose again to 28 and declined to 25½, from which there was a recovery to 26½. The preferred, after selling at 47½, gradually receded to 44, but recovered to 45½, the last sale being at 45. The 4 per cent. bonds sold from 85 down to 83¼, recovering to 84, and the 10-year 5s from 102 down to 101½. United Railways common changed hands at 13½ and 13¾; the income bonds, after selling at 68½, rose to 68½ and receded to 67½, from which there was a recovery to 68. The 4 per cent. bonds sold at 94¼ to 95, but Light & Power preferred was dull and inactive, although the 4½ per cent. bonds were traded in at 81 and 84. Consolidated Gas was dealt in at from 73 to 74, the 6 per cent. bonds at 113, and the 5s at 114¼ and 114½. Cotton Duck common was traded in at 8, the income bonds at 39 to 40, and the 5s at 78. G. E. S. common sold at 13, the incomes at 36½ and 37, the 1sts at 49 to 50, and scrip at 50.

The trust-company group started off with sales of Mercantile at 168, and later at 167. Baltimore Trust & Guarantee sold at 317½; Union Trust from 73¼ down to 72½; Continental at 211 and 210; American Bonding & Trust at 80, and Central at 59½. Fidelity & Deposit changed hands at 161¼ and 160, and United States Fidelity & Guaranty receded from 150 to 148. Farmers and Merchants' Bank sold at 70½ and 70, Bank of Baltimore at 126, and Mechanics' Bank at 31½.

Other securities traded in were as follows: Baltimore City 3½s, 1945, 110; do, 5s, 1916 W. L., 122; Suffolk & Carolina, 50 and 55; West Virginia Central 6s, 115; Baltimore Traction convertible 5s, 100; Nashville Railway common, 4 and 4½, and the 5s, certificates, at 77½ and 77½; the latter, with the first instalment paid, changed hands at 64¼; North Carolina 4s were traded in at 104½ and 104¾; Georgia & Alabama Consol. 5s, from 111¼ to 112; Alabama Consolidated Coal & Iron, 35 to 36½; do, preferred, 89½ and 90; Georgia Southern & Florida 1st preferred, 99½ and 100; do, 5s, 115½; Carolina Central 4s, 98½ and 98¾; Charlotte, Columbia & Augusta 1sts, 118¼; Baltimore City Passenger 4½s, 102; do, 5s, 105½; City & Suburban 5s (Baltimore), 115; Maryland Telephone 5s, 85; Anacostia & Potomac 5s, 90 and 98½; United States 3s, coupon, 108½; Atlantic Coast Line common, 168; do, new 4s, 89½; Lexington Street Railway, 50; Georgia, Carolina & Northern 5s, 112 and 112½; Charleston & Western Carolina 5s, 114¼ and 114; Wilmington

& Weldon 5s, 123; Virginia Midland 3ds, 119; do. 5ths, 115; Richmond & Petersburg 6s, 117; Northern Central stock, 122; Second Avenue Traction 5s (Pittsburg), 118½; Alabama Midland 5s, 112½ and 112½.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended November 12, 1902.

Railroad Stocks.	Par.	Bid.	Asked
Georgia Sou. & Fla. 1st Pref.	100	99	100
Georgia Sou. & Fla. 2d Pref.	100	98	100
Southern Railway (V. T.)	100	93	100
United Railways & Elec. Co.	50	49½	50
Seaboard Railway Common	100	26½	26½
Seaboard Railway Preferred	100	44½	45½

Bank Stocks.	Par.	Bid.	Asked
Citizens' National Bank	10	33	33
Commercial & Far. Nat. Bank	100	137½	140
Farmers & Mer. Nat. Bank	40	70	70
First National Bank	100	165	165
German Bank	100	107	107
Manufacturers' National Bk.	100	100	105
Merchants' National Bank	100	194	195
National Bank of Baltimore	100	126	126
National Exchange Bank	100	194	200
National Howard Bank	10	11½	11½
National Marine Bank	30	37½	39½
National Mechanics' Bank	10	31½	32½
National Union Bank of Md.	100	117	118
Old Town Bank	10	11	11
Second National Bank	100	190	190
Third National Bank	100	134	134

### Trust, Fidelity and Casualty Stocks.

Baltimore Trust & Guarantee	100	300	320
Central Real Estate & Trust	50	57	57
Continental Trust	100	210	211½
Fidelity & Deposit	50	159	162
International Trust	100	144½	147
Maryland Trust	100	215	215
Mercantile Trust & Deposit	50	165	168
Union Trust	50	72	73
U. S. Fidelity & Guaranty	100	148	149½

Miscellaneous Stocks.	Par.	Bid.	Asked
G. B. & S. Brewing Co.	100	13	13½
United Elec. L. & P. Pref.	50	38½	41½
Cotton Duck Voring Trust	100	7	8
Consolidation Coal	100	110	116
George's Creek Coal	100	72½	73½
Consolidated Gas	100	265	275
Atlantic Transport	100	265	275

Railroad Bonds.	Par.	Bid.	Asked
Atlanta & Charlotte 1st 7s, 1907	113	113	113
Columbia & Greenville 1st 6s, 1916	121	121	121
Georgia, Car. & North 1st 5s, 1929	112½	112½	112½
Georgia South. & Fla. 1st 5s, 1945	115	115	115
Georgia Pacific 1st 6s, 1922	127½	127½	127½
Raleigh & Augusta 1st 6s, 1926	125	125	125
Richmond & Danville Gold 6s, 1915	121½	121½	121½
Savannah, Fla. & West 5s, 1934	112	112	112
Southern Railway Con. 5s, 1994	118	118	118
Virginia Midland 3d 6s, 1916	116½	116½	116½
Virginia Midland 4th 3-4-5s, 1921	114½	114½	114½
Virginia Midland 5th 5s, 1928	115	115	115
West. North Carolina Con. 6s, 1914	118½	118½	118½
West Virginia Central 1st 6s, 1911	114½	114½	114½
Wilmington & Wel. Gold 5s, 1935	124	124	124
Charleston City Railway 5s, 1923	106	106	106
Charleston Con. Electric 5s, 1999	90	90	90
Newport News & Old Pt. 5s, 1938	115	115	115
Norfolk Street Railway 5s, 1944	108	108	108
United Railways 1st 4s, 1949	94½	94½	94½
United Railways Inc. 4s, 1949	68	68½	68½
Seaboard 4s	83½	83½	83½
Seaboard 10 year 5s	101½	101½	101½
Georgia & Alabama Con. 5s	111½	111½	111½
Atlanta Street Railway 5s	106½	106½	106½

Miscellaneous Bonds.	Par.	Bid.	Asked
Mt. V. & Woodb'y Cot. Duck 5s	77	79	79
Mt. V. & Woodb'y Cot. Duck Inc.	39½	39½	39½
G. B. & S. Brewing 1st 3-4s	49	49½	49½
G. B. & S. Brewing 2d Income	36½	38	38
United Elec. Light & Power 4½s	82½	84	84
Consolidated Gas 6s, 1910	113	113	113
Consolidated Gas 5s, 1939	115½	115½	115½

### Oklahoma Bankers.

The program of the sixth annual convention of the Bankers' Association of Oklahoma, held at Oklahoma City, was as follows: Address of welcome to Oklahoma City, Mayor G. C. Jones; response, John A. Goodwin, Custer County State Bank, Arapahoe; report of Secretary H. W. Painter, cashier Bank of the Indian Territory, Guthrie; report of Treasurer L. B. Heliker, vice-president of the State Bank of McLeod, McLeod; address, "Pioneer Banking," J. W. McNeal, president Guthrie National Bank, Guthrie; address, "Oklahoma School Lands," Prof. F. S. Elder, Territorial Normal College, Norman; address, "Relations of Oklahoma Banks to Kansas City Banks," F. P. Neal, vice-president of the Union National Bank, Kansas City, Mo.; address, "How Best to Increase Profit Account," O. J. Fleming, president of the Bank of Enid; address, "Oklahoma Banking Laws," W. C. Steven, president First National Bank, Lawton; address, Paul F. Cooper, Territorial bank commissioner, Shawnee.

President J. H. Wheeler of Oklahoma City called the convention to order and delivered his annual address. There were about 200 bankers in attendance, among them being prominent financial men from Kansas City, Chicago, New York and Boston.

### A New Trust Company.

The Guaranty Trust Co. of El Paso, Texas, has been organized, with \$300,000 capital. It is understood that J. Geo. Hilzinger will be president, and Thomas Davis, secretary. Among the stockholders are S. M. Felton, president of the Chicago & Alton Railroad; Paul Morton, vice-president of the Santa Fe Railway system; J. E. Hurley, general superintendent of the same company; T. P. Shouts of Chicago, John G. Mitchell of Bridgeton, N. J.; Ed C. Cully of Chihuahua, Mexico; D. W. Grubbs and T. H. Thatcher of Parral, Mexico; Harrison B. Smith of Charleston, W. Va.; Max Weber of Ciudad, Juarez, Mexico; H. P. Hilliard of Austin, Texas; Enrique C. Creel of Chihuahua, Mexico; F. Pimental y Fagoaga of the City of Mexico, Gen. Luis Terrazas of Chihuahua and H. W. Kelly of Las Vegas. Judge Leigh Clark of El Paso is to be counsel for the company.

### Listed in New York.

The New York Stock Exchange has listed \$440,000 additional first mortgage 6s of 1919 and \$440,000 second mortgage 5s of 1909 of the International Great Northern Railroad's bonds, making the total amounts listed to date \$10,235,000 and \$9,335,000, respectively. Including the bonds covered by this listing there have been issued upon 228 miles of continuous railway, newly constructed, of the Calvert, Waco & Brazos Valley Railroad Co., extending from Spring in Harris county in a northerly direction to the present terminus in Ellis county, \$2,281,000 of first mortgage 6s and \$2,281,000 of second mortgage 5s.

### New Bonds Offered.

Messrs. Hallgarten & Co., 74 Broadway, and Blair & Co., 33 Wall street, both of New York, announce elsewhere in the Manufacturers' Record that subscriptions will be received until 3 P. M. Thursday, November 20, at 98 and accrued interest, for the 5 per cent. collateral trust sinking fund gold bonds of the Virginia-Carolina Chemical Co., due October 1, 1912, the total issue of which is limited to \$7,000,000. These coupon bonds are issued in denominations of \$1000 each, with the privilege of registration as to principal. The interest is payable April 1 and October 1 in New York.

### New Corporations.

The Bank of Latta at Latta, S. C., has been chartered; capital \$5000.

Business men at Haddock, Ga., are talking about organizing a bank.

The Bank of Judsonia at Judsonia, Ark., capital \$15,000, has been organized to begin business.

J. S. Todd is president, and Robert Brewer, cashier, of the First National Bank of Quinton, I. T.

A dispatch from Caldwell, Texas, says that two applications for national banks for that town have been forwarded to Washington.

The Garfield County Abstract Co., incorporated at Enid, O. T., by Benj. F. Buffington, Amy and Charles Kelly, has \$42,500 capital.

T. W. McCown is vice-president, and George Vaughn, secretary and treasurer, of the Bank of Lockesburg, Ark., recently incorporated.

The Bank of Eagle City, O. T., has been incorporated, with \$5000 capital, by C. R. Williams of Cleo, J. W. Cornell and W. P. Pipu of Watonga.

The incorporators of the University Savings Bank of Athens, Ga., capital \$15,000, are W. T. Bryan, Thomas P. Vincent and John A. Wilkins.

The First National Bank of Runge,

Texas, capital \$25,000, was organized by E. G. Gillett, L. H. Browne, S. A. Hickok, A. J. Bell and others.

A new bank is being organized at Trezevant, Tenn.; capital \$50,000. It is reported that B. H. Hillsman will be president, and W. H. Ware, cashier.

The incorporators of the Dixie State Bank of Dixie, O. T., are J. C. Helf of Berlin, A. L. Henning, S. R. Richardson and C. W. Howard of Prior; capital \$5000.

The Border Abstract Co. of San Antonio, Texas, has been incorporated; capital \$10,000. The incorporators are T. E. George, B. J. Wilkerson and Gordon Bullett.

The Bank of Hanson, Ky., has begun business; capital \$25,000. The officers are: President, H. F. G. Rothrock; vice-president, Dr. J. S. Waller; cashier, T. M. Witt.

The Trust Co. of St. Louis County has been incorporated at Clayton, Mo.; capital \$200,000. The incorporators are J. E. Hereford, Thomas L. Skinker, James R. Waddill and others.

The Chickasaw Land, Loan & Investment Co. of Guthrie, O. T., incorporated by Fred Field, J. Walker Field, Frank S. Miller, T. J. Baker and Joseph F. Swords, has \$50,000 capital.

The Security Fire Insurance Society of Charleston, S. C., has been chartered. John T. Roddy is president; J. C. Budds, vice-president and secretary, and M. Stolle, manager; capital \$5000.

The Roanoke Loan & Investment Co. has been chartered at Roanoke, Va.; capital \$2000 to \$10,000. J. S. Perry is president and general manager, and C. H. Perry, secretary and treasurer.

It is reported from Brenham, Texas, that Wilhugh Wilkins, formerly cashier of the Beeville National Bank; W. P. Garrett and H. C. McIntyre propose to establish a bank at Oklahoma City, Okla.

The Security Trust Co. of Wheeling has been incorporated at Charleston, W. Va. This is the corporation in which Senator Stephen B. Elkins, J. N. Vance and others are interested; capital \$1,000,000.

The Co-Operative Banking Co. of Shelby County has been chartered at Memphis, Tenn.; capital \$3000. The incorporators are A. S. Hall, C. T. Kelley, W. C. Edmondson, Alf Conillens and R. F. Sloan.

The Covington State Bank of Covington, Garfield county, Oklahoma Territory, has been chartered, with \$5000 capital. The incorporators are R. J. Helton of Marshall, O. T. Helton and J. J. Harne of Garber.

The comptroller of the Treasury has approved the application of J. D. Miller, K. L. White, J. N. Miller, A. A. Reese, M. B. Wilson and others to organize the First National Bank of Royse, Texas; capital \$30,000.

The First National Bank of Temple, Okla., capital \$25,000, has been approved by the comptroller of the currency. The incorporators are J. C. Tandy, D. C. Cogdell, D. W. Cummin, T. J. Hurst, Jess Baker and others.

The Wewoka National Bank has been organized at Wewoka, I. T., to open for business November 20. T. A. Cutlip of Tecumseh, Okla., is president of the bank, which will occupy a new brick banking-house being erected for it.

The Century Banking Co. has been incorporated at St. Louis, Mo.; capital \$10,000. The stockholders are C. H. Brooks, P. D. Smith and H. B. Russell. Its purpose is to conduct a private bank in conjunction with the Banking Association.

The application of R. P. Brewer of Muskogee, I. T., J. S. Todd, Ben M. Cates, J. E. Dyer and Green Taylor to or-

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ganize the First National Bank of Quinto, I. T., with a capital of \$25,000, has been approved by the comptroller of the currency.

The officers of the Commercial and Savings Bank of Goldsboro, N. C., recently organized with \$15,000 capital, are: President, George A. Norwood, Jr.; vice-president, I. F. Dortch; cashier, James S. Crawford. The directorate includes the officers and Messrs. W. T. Yelverton, George C. Royall, B. H. Griffin, Leslie Weil, I. J. Harrell, M. J. Beat, Dr.

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